Cranfield University

Sarah L. Quinn

'Flood Disaster – The Role of Resources and Appraisal in Loss and Coping'

School of Engineering

Ph.D. Thesis

CRANFIELD UNIVERSITY

SCHOOL OF ENGINEERING

Ph.D. THESIS

Academic Year 2003 - 2004

SARAH L. QUINN

'Flood Disaster – The Role of Resources and Appraisal in Loss and Coping'

Supervisor: Professor Helen Muir

February 2004

This thesis is submitted in partial fulfilment of the requirements for the degree of Doctorate of Philosophy

Abstract

Using the Conservation of Resources model by Hobfoll (1989, 1998) and the Cognitive-Appraisal theory by Lazarus and Folkman (1984) this research sought to understand what role resources and appraisal had in a participant's experience of loss and coping in Northamptonshire or Yorkshire due to being flood affected. Samples from two UK floods, the Easter 1998 and Autumn 2000 events, were selected and twenty-four in-depth interviews, one case study and two focus groups were conducted using a qualitative methodological approach and one semi-qualitative questionnaire was developed and distributed to 250 properties.

The research aimed to establish which authors work was more appropriate towards understanding an individual's experience of flooding and any subsequent loss or was it better to combine the two. Then to understand if a single resource could contain both an objective and a subjective component that could be lost as a result of a flood. If this last aim was supported, then two further objectives were to be investigated; If a single resource contained dual components, did the objective or subjective element of the loss have the greater impact upon the individual. Finally, if a single resource contained dual components, how did the individual cope with loss of the objective element compared to loss of the subjective element?

This research concluded that it was more appropriate to combine both theories to provide a comprehensive understanding of flooding. The five resources categories, object, condition, personal characteristic, energy and social support all demonstrated to varying degrees a duality of loss, in that one resource could have both an objective and subjective element that could be lost. Both types of loss had an impact but subjective losses appeared to affect participants longer. Participants used problem-solving, emotion-focused and disengagement-focused coping activities but there was a weak pattern of loss to coping employed.

Acknowledgements

Significant thanks must go to my supervisor, Professor Helen Muir for taking a chance on an engineer being able to understand the complex field of psychology, although I cannot say it was all plain sailing, several re-writes and detailed conversations prove otherwise! But thank you for your faith in me, especially during the early times. I hope I did you proud.

Equally, Dr. Rachel Asch, deserves much praise for reading and rereading reams of qualitative data analysis, for her tact when telling me what I had done wrong (again!) and generous personal support.

To my friends who all put up with several years of moaning, despair, exhilaration and confusion (did anyone actually know what I was researching apart from me?!), thank you all. Paul R and Brian – partners in crime to the end – will we ever get rid of each other?! To Karen for continually providing a swift size six when required and for providing a superb PR job on my successes to anyone who would listen (bettered only my mum)! To Stuart for his Q&A sessions, which kept me sane – I think we have finally set the world to rights now! To The Zoo inmates in the Applied Psychology department, past and present, for chair races, philosophical debates on weird subjects and hangovers, thank you! And to Paul D for endless support and faith – even when he was thousands of miles away, cold, wet and cramped on a fishing boat!

Thanks must definitely go to my mum and dad for support of the financial, emotional and at times mental, variety! 'Hello mum – I did it!' 'Hello dad – yes I will become a productive member of society now and get a job!'

Much love and thanks goes to Steve, for laughter, long telephone conversations, hugs and pineapple ravioli! Thank you for believing I could do it even when I didn't! Although I know it's only so you can send me a card (like **everyone** else probably!) saying – 'Congratulations Dr. Quinn, Medicine Woman'. Muppets, the lot of you.

Contents

'But the emotional cost to victims of floods is probably immeasurable. How can anyone put a price on the loss of wedding albums, family photos and the effort and care that goes into making a home? It can only take a few moments for that to be destroyed by a flood.'

(Sir John Harman, Environment Agency Chairman, September 2000)

1.0 Literature Review

1.1 Introduction

This review examined existing literature, which had bearing upon the thesis topic, its aim and objectives. The thesis sought to understand from participants involved in flooding, what role resources and appraisal had in their experience of loss and coping due to flood disasters. After careful consideration, six main areas to ensure the researcher covered all interconnecting elements of the thesis topic were decided upon, those of disasters, flooding, stress (examining resources and appraisal), loss and coping.

In order to explain the context of the research, the subjects of disasters and in particular flood events, were included in the literature review. However, discussion of the two subjects was only cursory to provide a basic understanding of disasters and flood events. This was because the thesis did not intend to study disasters as a research aim; rather the effect one type (flooding) may have upon individuals involved. This was to allow the reader to understand the scale and magnitude of these events and place the data collated into context.

Stress, loss and coping are all large and complex subjects so it was necessary to define clear boundaries for the scope and depth of the literature review to be conducted. Within these fields the study of personality is a key factor. It was decided early on that this would be outside the scope of the thesis aims and objectives as the researcher did not seek to examine what personality traits were inherent in the individuals participating in the research.

Within loss literature research existed regarding phases of grief whilst coping with stressful situations, similar in content to those developed for use within a disaster management context. These phase models have shaped the field of loss and coping research, so it is pertinent to include them. Furthermore, definitions of loss appeared vague and undefined requiring further attention within the context of flood disasters.

To avoid 'reinvention of the wheel' particularly within the fields of stress and coping and to determine what literature was examined, the researcher used the following guidelines; Has the literature, model or author been cited within the field of disasters? Has the literature, model or author used their research within a UK context? Here evidence for precedence for use of a particular model or theory was sought within a disaster context and preferably a UK one. Negative cases were also required, whereby a theory or model was used within an international disaster event, but not in a UK one to assess its applicability for inclusion in the research. This allowed the researcher to focus upon literature directly relevant to the thesis aim.

Following careful revision of the literature available, several works on the subject of stress within disasters became evident as suitable for inclusion by the authors Hobfoll, Lazarus and Folkman. These authors examined stress and coping but from different standpoints and both theories had been used within disaster contexts but not for a UK based event. Work on

stress appraisal by Lazarus (without his colleague Folkman) was generally acknowledged to be the seminal work on the subject of stress and research with Folkman developed the field further. Hobfoll's stress resource theory was directly opposed to this line of thinking, although formulated with reference to it and challenged core assumptions and theoretical directions stated by Lazarus and Folkman in their work. Using similar criteria as before, only coping literature that had been used for research within a disaster context in the UK or internationally, was included in order to provide some boundaries for the review.

This literature review aimed to provide a sound basis of knowledge of the interconnected fields within the research topic. The importance of combining research fields and methodological approach within the field of disaster is an increasingly relevant need towards providing holistic and appropriate research to examine complex issues. By examining the two stress models of Hobfoll and Lazarus and Folkman within the context of UK flood disasters, the research aimed to determine if either of these theories independently, or both combined, was more appropriate in understanding an individual's experience of flood disaster and any subsequent loss.

These two theories, both well known within psychological literature, have been used previously within some disaster related research but neither within a UK flood context. Both models have been utilised within this thesis to examine other issues of loss and coping due to flood events. In particular, the Resource Theory by Hobfoll (1989) has been expanded here to address the issue of subjective and objective resource losses in disaster.

Justification for the research objectives is demonstrated within the literature review and the six fields are presented and discussed with relevance to the field of disasters and flooding. Constraints of previous research, limitations and assumptions are also examined providing evidence for the validity of the project undertaken by this researcher. Key themes, core theories and factors influencing the research from prior literature are also discussed providing detailed indication of the foundations and relevance of this research presented. Finally the aims and objectives of this research are presented with justification for them.

1.2 Disasters

1.2.1 Introduction

In this section the nature of the word 'disaster' is discussed with examples cited to illustrate the ambiguity and scope that the term encompasses, depending on its use and any researcher's own agenda. Floods are also examined with definitions given to provide clarity of the term 'flooding' from a disaster management and natural hazards perspective. It must be noted that 'flooding' is not used within this thesis in the psychological sense to mean a form of behaviour therapy whereby the patient is exposed to their feared object (Gross, 1992, pp. 975). Rather, it is used within a natural hazards context relating to a volume of water. Finally a brief overview of psychological research of disaster events is presented highlighting the range and content of such interdisciplinary research.

1.2.2 Definition of Disaster

Freedy, Shaw, Jarrell and Masters, 1992, state that disasters are '...extreme events occurring within a discrete time period...' (Freedy et al., 1992, pp. 442). Murphy, 1986, states that, 'Although disasters are commonly thought to be single episodes, they are more likely to be a series of catastrophic events that include stress-producing warnings, life-threatening impacts, and prolonged, traumatic recoveries' (Murphy, 1986, pp. 63). Here the author suggests that to regard the disaster itself as one single event may be incorrect and that in reality the event may be comprised of several smaller, stress-inducing 'catastrophic events' (Murphy, 1986, pp. 63) combining to form the disaster situation.

Western, 1972, states that, 'At one level, a disaster becomes a disaster only when man and the environment he has created are affected. An avalanche in an uninhabited valley, or an earthquake in the Arctic are geophysical events, not disasters' (Western, 1972, pp. 7). Here it seems that the human impact from the event, the interaction of situation and population and the ability to respond plays an important role in the differentiation between severe natural event and disaster.

Raphael, 1986, defines disasters as, '...usually overwhelming events and circumstances that test the adaptational responses of community or individual beyond their capability, and lead, at least temporarily, to massive disruption of function for community or individual' (Raphael, 1986, pp. 5). Disasters are usually thought of in '...terms of sudden and dramatic events, but disasters may also be gradual and prolonged...' (Raphael, 1986, pp. 5). The author suggests that disaster definitions '...are often related to crisis concepts. Both are characterized by rapid time sequences, disruption of usual coping responses, perceptions of threat and helplessness, major changes in behaviour and a turning to others for help' (Raphael, 1986, pp. 6). However, of the two, '...disaster by implication is the more threatening and serious...' (Raphael, 1986, pp. 6).

Within these definitions the event has been defined as a disaster, a catastrophe and a crisis (Freedy, Shaw, Jarrell and Masters, 1992, Murphy, 1986 and Raphael, 1986). Turner and Pidgeon, 1997, state that other definitions of the term disaster may include '...alternatives such as 'calamity'...and 'cataclysm'...' (Turner and Pidgeon, 1997, pp. 69) thus illustrating an inherent problem when studying the topic of disasters – the lack of a single, commonly accepted term to encompass all the facets of the event and its effects. However, Alexander, 2000, asserts that there is insufficient reason for differentiating between the various terms, as they are synonymous (Alexander, 2000, pp. 7, footnote 1) perhaps suggesting that the argument regarding definition is largely irrelevant.

It has been suggested that the term disaster is '...one of the many "sponge" concepts within the English language' (Quarantelli and Dynes, 1970, pp. 328). The authors suggest the term can refer to the agent, the impact, the psychological evaluation of the event and the social disruption it creates, encompassing psychological and sociological meanings in the one term (Quarantelli and Dynes, 1970, pp. 328). Even within these few definitions presented here, variation and content of the term is evident, from the time-span that the event occurs within, the scale of impact and the duration or nature of its after-effects. The experience may be regarded as overwhelming and that any response on the part of the individual or community affected will be largely unsuccessful due to situation exceeding the capability to

cope. This suggests that a disaster has a psychological effect upon the individual in terms of perception and sense of control of the event as well as the physical impact of loss and damage.

Turner and Pidgeon, 1997, state that 'There is no clear definition of disaster which is wholly appropriate for use in trying to gain an understanding of events which lead up to such disruptive incidents...there seems to be no single, precise notion underlying the common usage of the term, waiting to be encapsulated perfectly by means of a few words of definition.' (1997, pp. 68 - 69). They continue by asserting that as a result of the ambiguous nature of the term, '...the choice and definition of the term has generally been bound up with the purposes and interests of the investigator using it.' (Turner and Pidgeon, 1997, pp. 69) resulting in the variety and volume of definitions of disaster in the literature.

As Alexander, 2000, states, 'It is clear the term disaster is multifaceted and open to a range of different interpretations. Its meaning may differ with the use to which is put.' (Alexander, 2000, pp. 20). He concludes his argument by stating that ultimately '...disaster is what its victims and participants perceive it to be...' (Alexander, 2000, pp. 22).

1.2.3 Natural Disasters – Floods

Although arguing against the use and need for an all-encompassing definition of disaster, Alexander, 1993, does provide a definition for the term 'natural disaster'. The author defines natural disaster as, '...some rapid, instantaneous or profound impact of the natural environment upon the socio-economic system' (Alexander, 1993, pp. 4).

Regarding this definition Alexander, 1993, states, 'From this it is clear that we are dealing with a physical event which makes an impact on human beings and their environment and, unless this conjunction occurs, there will be no hazard or disaster. The hazard involves the human population placing itself at risk from geophysical events' (Alexander, 1993, pp. 4). This agrees with Western's 1972 suggestion that a disaster only occurs if there is an interaction between man and environment. In this case the need for a definition is evident as the disaster is a result of a particular agent, a natural hazard, and therefore relates to this specific type of situation, which is not applicable to all events.

Natural disasters are geo-physical, that is, they are a result of geological, hydrological or atmospheric conditions interacting with the man-made environment. This would include events such as earthquake, flood or forest fire. These are separate to technological disasters, such as an aircraft crashes, train derailments or ferry capsizes, whereby some form of technological or human failure causes the disaster. Technological (sometimes referred to as man-made) disasters are not within the scope of this research project.

Alexander, 1993, defines a flood as '...the height, or stage, of water above some given point, such as the banks of a river channel. The flood hazard consists of threat to life or property posed by rising or spilling water' (Alexander, 1993, pp. 120). He goes on to explain that there are four main types of flood, riverine, estuarine and coastal where riverine is sub-divided into two types, '...slow-rising kinds resulting from rainfall or snowmelt and the more abrupt flashfloods caused by intense thunderstorms' (Alexander, 1993, pp. 120).

Floods occur when the surface area cannot cope with the quantity of water being deposited upon it and the ground becomes saturated. Rivers have a natural floodplain, which is a given area of ground around the watercourse that will naturally contain the spillage of water from the river (Alexander, 1993, pp. 121). When this area cannot soak up the amount of water running onto it, water will begin to divert elsewhere and flooding can occur.

Floodplains can be defined in terms of a return period, or recurrence interval, which basically means that the ground around the water course will have a maximum absorption capacity for a given time period, as in a '100-year floodplain' for example (Alexander, 1993, pp. 121). This means that the absorption limit of the area may be breached once every 100 years and many authorities would plan to this level of event, assuming that they would not have to face a flood of this magnitude more than once in one hundred years. This would typically be regarded as planning for a realistic 'worst case scenario'. It is generally taken that '...the larger the recurrence interval, the longer the return period and the greater the magnitude of flood flow' (Alexander, 1993, pp. 121). Put simply, the longer the period of time between floods, the more likely the area is to be hit by a large flood event, which it cannot cope with (Alexander, 1993, pp. 121).

Flash floods are typically characterised as '...extreme, though short-lived...' (Alexander, 1993, pp. 129) whereby a quantity of water is distributed onto the land in a relatively quick time span. This part of the process can happen very rapidly as '...flash floods are often very destructive as the high energy of flow may carry much mud and sediment...' (Alexander, 1993, pp. 130) or loose debris picked up along its path. This is when the most damage occurs as the sheer momentum and volume of water is hard to avoid and due to increased building upon floodplain land, the path of least resistance may be through someone's property.

It is not the purpose of this research to examine floods from a hydrological or engineering perspective so only a cursory explanation of the types of floods and their characteristics are presented here. This is to provide the reader with an understanding of the physical nature of these extreme events to place subsequent data and research into context.

1.2.4 Psychological Research into Disasters

Previous research investigating the field of disaster psychology has been varied and diverse examining both survival situations and those of a non-survival nature. However, as the researcher's own project was not concerned with individual response to short and long term survival situations and as participants interviewed did not report any feeling or actual threat to life, so literature on this subject was regarded as superfluous to the thesis and was not included.

Gibbs, 1989, suggested that research of disaster situations from a psychological perspective poses several problems. The event itself may be totally unpredicted and thus experimental controls or conditions are almost impossible to achieve, 'pre-test measures from survivors are seldom available comparison to post disaster data' (Gibbs, 1989, pp. 490), it may not be possible to administer any objective measures on a representative sample and an '...investigative scientist may not be welcome in the midst of tragedy' (Gibbs, 1989, pp. 490). This is in direct contrast to more traditional psychological research in which the

experimental situation can be controlled, thus illustrating the inherent problem with studying a 'real life' event.

Models describing the disaster cycle (Davis and Lambert, 1995, Alexander, 2000) in terms of phases from a disaster management perspective closely mirror those developed within the field of psychology. Leach, 1994, proposed a dynamic model of disaster, which suggested a five stage event; pre-impact phase – sub-divided into threat and warning stages, impact phase, recoil phase, rescue phase and post-trauma phase (Leach, 1994, pp. 8).

This model is based upon an earlier dynamic model by Tyhurst (1957) in which he proposed a three stage psychological reaction to disaster; impact, recoil and post-trauma. Samways, 2002, in her Ph.D. thesis states that 'Dynamic models are concerned more with analysing the disaster with respect to the behaviours of individuals involved in the event. Dynamic models map these behaviours onto the different phases of disaster...' (Samways, 2002, pp. 12).

These phases (both in the disaster management and psychological models) are useful in understanding disasters and activities which may be undertaken within the event but it must be stressed that every event is different and although they may exhibit similarities, it is not a case of one solution fits all. However, it is useful to acknowledge that some similarities exist between different disciplines attempting to understand the same concept regardless of approach or model used.

Much research has been conducted examining the factors, which may influence the impact of the disaster upon the individual, such as the nature or magnitude of any loss experienced. Smith, 1996, stated, '...there is no universally agreed definition of the scale on which loss has to occur in order to qualify as a disaster' (Smith, 1996, pp. 5), nor even what form that loss takes. However, the author does suggest a hierarchy of loss threats, ranging from the most severe – hazards to people which includes death, injury, disease and stress, to hazards to goods – property damage or economic loss and finally to hazards to environment – whereby loss of flora and fauna, pollution and loss of amenity happen (Smith, 1996).

Furthermore, the variables within the individual that may affect vulnerability to disaster (and impact of any associated loss) are so diverse that findings within literature are often conflicting. Gibbs, 1989, stated that the reason for this discrepancy within the literature might be due to '...the characteristics of the particular disaster, the type of measurement of impairment used, and the particular divisions of age employed by the researcher' (Gibbs, 1989, pp. 495).

Factors which may influencing the impact of, or vulnerability to, disaster may include social support (Norris and Kaniasty, 1996), resource loss or gain (Freedy, Shaw, Jarrell and Masters, 1992), prior experience (Norris and Murrell, 1988) or sociodemographic characteristics such as age, gender or financial status (such as work by Freedy, Shaw, Jarrell and Masters, 1992, Norris, Byrne, Diaz and Kaniasty, 2001b and Kaiser, Sattler, Bellack and Dersin, 1996). These works highlight the various and diverse factors, both internal and external in origin, which may influence or impact upon the individual and their post-disaster reactions.

Perhaps the most detailed work regarding flood disasters is that of the Buffalo Creek event in 1972, West Virginia, USA. Lifton and Olsen, 1976, investigated the post-flood meaning the flood had for those affected and found several common themes. As the event was extreme and caused widespread death and destruction many interviewed recalled a pattern of 'death imprint' and 'death anxiety' (Lifton and Olsen, 1976, pp. 2). Here, memories and images of the disaster were extremely vivid even 30 months later and are termed 'indelible images' (Lifton and Olsen, 1976, pp. 2). Anxiety and fear associated with the weather, water and flooding in general was also observed with one participant cited as saying that 'he feels compelled to keep checking the river' (Lifton and Olsen, 1976, pp. 2). Another participant stated she has a fear of rain as 'When it starts raining I get afraid. I didn't used to be that way but now I am' (Lifton and Olsen, 1976, pp. 2).

The authors also found that death guilt, those who survived felt they should have been able to do something to save their loved ones from drowning, psychic numbing, also termed 'disaster syndrome' (Lifton and Olsen, 1976, pp. 5) was evident with 'manifestations of apathy, withdrawal, depression, and overall constriction in living' (Lifton and Olsen, 1976, pp. 5). Counterfeit nurturing and unfocused rage towards loved ones and a struggle for significance by survivors for their experiences were also reported (Lifton and Olsen, 1976, pp. 6 – 7).

This need for meaning was required in order for survivors and those affected to be able to carry on with their lives (Lifton and Olsen. 1976, pp. 8). Failure to find an explanation for the cause and who was to blame for the event were strong feelings within those interviewed and there was a general consensus that the event was man-made and not God's will (Lifton and Olsen, 1976, pp. 8). Similar findings were reported by Titchener and Kapp (1976) who stated many interviewed complained of character changes such as emotional outbursts or inability to feel anything, anxiety regarding the weather and a sense of hopelessness or pessimism (Titchener and Kapp, 1976, pp. 296 – 297).

Some interesting work on risk factors which may affect the individual's psychological adjustment post-event was conducted by Freedy, Saladin, Kilpatrick, Resnick and Saunders (1994). The authors state that certain objective and subjective risk factors can affect an individual's adjustment following traumatic events. 'Subjective risk factors include a person's perceptions of the traumatic event' whereas objective risk factors typically include '...bereavement, property loss, personal injury, or unemployment' and both are '...typically associated with higher levels of psychological distress...' (Freedy, Saladin, Kilpatrick, Resnick and Saunders, 1994, pp. 258). This research is notable because it examines the concept and role of objective and subjective risk factors in extreme or traumatic events.

However, it must be recognised that not all after-effects of disasters are negative. Recent research has highlighted the importance of examining the positive effects following disaster, with specific attention paid to positive outcomes of coping (Folkman and Tedlie Moskowitz, 2000, pp. 647). Post-disaster reports have noted the existence of a 'euphoric' or 'honeymoon' period whereby communities seem to react positively, pull together and cope well with the aftermath of disaster (see McLean and Johnes, 2000 and Raphael, 1986).

However, most after effects of disasters are not positive and survivors may see few redeeming qualities in their experience, which are often perceived as stressful.

In conclusion, disasters are hard to define, complex, multi-layered and often stressful events, which can affect the individual in a variety of ways both physically and psychologically. Previous research has attempted to define disaster and compartmentalise it into easily useable categories or phases. Disaster can be viewed for ease of understanding as comprised of phases but this does have limitations for research or practitioner use. Psychological interest in disasters has been ongoing and has examined issues before, during and after an event in both survival and non-life critical situations. There has been some research conducted examining the positive aspects or outcomes of disaster but these are limited and it is generally accepted that disasters tend to have few redeeming features.

1.3 Stress

1.3.1 Introduction

This section will focus upon the three commonly accepted viewpoints in academia of stress to describe the concept. A background to the extensive stress literature is provided specifically to illustrate the common theories and issues that the two core models used within this thesis are based upon. These models, Hobfoll's Conservation of Resources (COR) model (1989, 1998) and Lazarus and Folkman's Cognitive-Appraisal theory (1984) are explained fully in Section 1.4. It must be noted that the primary model used in this thesis research was Hobfoll's COR model, however for ease of demonstrating the expansion of the field of stress, Lazarus and Folkman's 1984 theory is discussed first. This is because research by Lazarus has formed the basis for much advancement in the field and Hobfoll's own theory, is based upon it.

1.3.2 Review of Previous Stress Literature

It was not the purpose of this review to provide a comprehensive assessment of the previous models not directly relevant to the research or a detailed history of the extensive stress field. However, the two key theories used as a framework for the research are based upon this previous work so it was appropriate to offer a brief overview.

The notion of stress as a cause, an effect or an interaction has been substantially researched thus providing the foundations for development of Hobfoll's COR theory (1989, 1998) and Lazarus and Folkman's Cognitive-Appraisal theory (1984).

The first theory, stress as a response, relates mainly to the physiology of the stress situation. Briefly, research on this between the 1930s and 1960s concentrated on examining the physical responses (the effect) to a stressor such as cold and lack of oxygen, imposed upon the individual (Cannon, 1932). In the 1950's Selye developed the General Adaptation Syndrome whereby a person experienced alarm, resistance and then exhaustion. The notion that stress was not merely a response, but actually a defensive mechanism engaged by the body to protect itself from environmental challenge from noxious bodily processes, including psychological ones (Selye, 1978). Here stress is not an environmental demand – a

stressor – but the variety of physiological reactions and processes created by the stressor within the individual.

However, research on response-based definitions of stress focused too narrowly and assumed that these responses would be uniform and physiological only. Indeed, as Appley and Trumbull, 1986, state '...there can be little generalization across categories of stressors – or even the same stressor exposure at different times – as to extent, intensity, direction, duration, or permanence of effect such stressors could be expected to have on individuals or their responses.' (Appley and Trumbull, 1986, pp. 6). It was argued that the reaction of a person to stress is not standardised and is actually a product of '...their personality, constitution, perceptions and the actual context in which the stressor occurs...' (Hobfoll, 1989, pp. 513). But research into physical responses to a stressor suggested one crucial point – stress is not the same for everyone.

In the most basic terminology, the word 'stress' can mean 'both a cause and an effect' (The Penguin Dictionary of Psychology, 1985, pp. 737) and one meaning suggested is that '...stress is the antecedent of some effect' as well as '...the result of other pressures' (1985, pp. 737). Schwarzer, 1998, explains that antecedents '...are person variables such as commitments or beliefs on the one hand and environmental variables, such as demands or situational constraints, on the other' (Schwarzer, 1998, pp.531). These internal and external variables, whether they are an antecedent or a result, can influence individual perception of an event and ultimately whether it is viewed as stressful or not.

Personality questionnaires and checklists were developed to establish what factors related to individual susceptibility to stress and new meanings to old concepts like intensity, duration and 'normal' were sought (Appley and Trumbull, 1986). This brought academic thinking to research on the second theory, stress as a stimulus.

Hobfoll, 1989, states, 'Events in this case are considered stressful on the basis of whether they normally lead to stress reactions. That is, if the stimulus usually leads to emotional upset, psychological distress, or physical impairment or deterioration, then the stimulus is a stressor' (Hobfoll, 1989, pp. 514). Issues of ethical considerations arising from previous studies examining '...shock, acceleration, noise and deprivation...' (Appley and Trumbull, 1986, pp. 9) now appeared as researchers examined different environments and situations that could potentially cause stress in an individual without causing harm or distress to participants.

Research expanded in the 1960s and 1970s into coping with stress and the use of cognitive psychology was one framework for examining the final stress theory in this discussion. 'How do we cope with stress?' (Gross, 1992, pp. 153) was the key question to the third stress theory and added the dimensions of interaction and coping to the concepts of response and stimulus within a transactional process. The balance (McGrath, 1970) and transactional (Lazarus, 1966) models examined this third theory of interaction between person and environment.

Stress theory was given a significant exposure by Lazarus's 1966 '...theory of stress and the self...' (Hobfoll, 2001, pp. 340), which was later revised by Lazarus and Folkman in

1984. This theory offered substantial scope for research and investigation as it was perceived as '...a realistic framework for stress research and theory...' (Chalmers, 1981, pp. 328).

McGrath, 1970 defined stress as '...a particular kind of reaction of an organism to environmental events' (McGrath, 1970, pp. 14). He further stated that previous definitions of stress did not consider the complexity that perception of threat can alter the situation (McGrath, 1970, pp. 15) and Lazarus, 1966, defined stress as concerning '...the meaning or significance of a stimulus...' (Lazarus, 1966, pp. 424).

'Implied in these definitions (by Lazarus and McGrath) is that stress is not the product of imbalance between objective demands and response capacity, but of the perception of these factors. Second, the consequences of failure to cope must be perceived as important to the individual.'(Hobfoll, 1989, pp. 515, my brackets). Gross, 1992, concurred stating that stress occurs, '...when there is an imbalance between the person's perception of the demand being made of them by the situation and their ability to meet the demand, and when failure to cope is important' (Gross, 1992, pp. 136).

Therefore the transactional model examined the process of psychological stress under the definition that it is '...a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being', (Lazarus and Folkman, 1984, pp. 19). If the person perceives that they are unable to cope with the demands presented after appraising the situation, then stress can occur.

Examining the psychological aspect of stress within a transactional approach led researchers to try and identify the factors that may influence the stress experience. Chalmers, 1981, suggested that resources might play a part in the experience of stress by stating, '...the experience of stress is the balance or imbalance resulting from the interaction of four components; internal needs and values, external environmental demands and constraints, personal resources or capabilities, and external environmental supplies or supports' (Chalmers, 1981, pp. 333). Research had expanded into looking at not only the internal and external factors in the stress experience, but also the sub-division of them and the impact each set might have to a greater or lesser extent.

Further deconstructing the concept of stress, Frese, 1986, examined the concept of subjective stress and proposed that if the stressor is perceived to be stressful, then this is subjective stress. He stated that 'Stressors can be conceived to be either objective (as seen from the observer's point of view) or subjective (as seen by the subject)' (Frese, 1986, pp. 185 - 186). Although his definition was mainly applicable to stressors (i.e. the causes of stress) it does highlight the fact that the stress process may include both objective (tangible) and subjective (intangible) components. Research suggested not only that there were potentially many factors involved in the stress process but also that some might have multi-dimensions too. This type of research was useful as it began to break down stress into smaller, more individual elements, thus allowing the detail of the stress experience to be explored.

1.4 Appraisal versus Resources

1.4.1 Introduction

In this section, discussion will centre on the Cognitive-Appraisal theory as proposed by Lazarus and Folkman, in 1984. The cognitive-appraisal model is sometimes referred to in the literature as transactional theory when discussing the person-environment interaction. It is also referred to as the process approach when discussing coping methods employed. Finally, it may also be known as cognitive-appraisal theory when related to the cognitive processing and the role of emotions within a stressful situation.

However, all attempts will be made to clarify at each stage of this discussion which term is being used and in what context but the core model used in the research is that of the Cognitive-Appraisal theory as proposed by Lazarus and Folkman, 1984. Initially, an overview of the theory is presented, highlighting the various forms of appraisal. The influence that the theory has had upon coping research is briefly touched upon and finally the use of the cognitive-appraisal theory within a disaster context is assessed.

1.4.2 The Cognitive-Appraisal theory – An Overview

In 1966, Lazarus suggested that stress was a result of the imbalance between the person and the environment. Stress was proposed to be a process or transaction between person and environment, rather than as a series of responses or reactions to extreme events, thinking which had prevailed up until then (Parker and Endler, 1996). This model was refined in 1984, by Lazarus and Folkman, in which they paid greater attention to the role of appraisal within a stressful situation. They emphasised the cognitive process involved in the appraisal process in defining stress as 'The relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being' (Lazarus and Folkman, 1984, pp. 19).

They argued that the concept of appraisal was necessary to understand the stress-coping process because although 'certain environmental demands and pressures produce stress in substantial numbers of people, *individual and group differences* in the degree and kind of reaction are always evident' (Lazarus and Folkman, 1984, pp. 22, italics in original). They believed that appraisal was the key to understanding why these differences occurred and therefore was vital to understand stress through a cognitive lens. They wanted to understand the cognitive process of appraisal an individual undertakes to assess a situation as either benign or dangerous as, they contend, '...in order to survive and flourish' human beings must be able to do this (Lazarus and Folkman, 1984, pp. 23).

1.4.3 Primary and Secondary Appraisal

Cognitive appraisal, according to Lazarus and Folkman, 1984, '...rests on the individual's subjective interpretation of the transaction...' (Lazarus and Folkman, 1984, pp. 46) and appraisal can be '...inferred from self-reports, experimental manipulations, and personality assessments...' (Lazarus and Folkman, 1984, pp. 48).

The authors suggest that a situation is not stressful to an individual unless it is appraised as such and that this appraisal process can be primary or secondary in nature (Lazarus and

Folkman, 1984). Primary appraisal can be distinguished three ways; the situation is viewed as 'irrelevant' – whereby the situation has no implication for the person's well-being, 'benign-positive' – if the outcome of the encounter is perceived as potentially positive, or 'stressful' – if the situation is taken to be stressful (Lazarus and Folkman, 1984, pp. 32). The authors suggest an '...appropriate entry point for measuring the person's primary appraisal is an assessment of what he or she judges to be at stake in the transaction, and the magnitude of its potential costs and/or benefits' (Lazarus and Folkman, 1984, pp. 315).

The situation is then appraised at a secondary level as a harm/loss, threat or challenge state, (Lazarus and Folkman, 1984, pp. 32) if the result of the primary appraisal is that a stressful situation is or may be likely to occur. The authors suggest a fundamental feature of secondary appraisal '...is the extent to which the person senses that something can or cannot be done to alter the troubled person-environment relationship' (Lazarus and Folkman, 1984, pp. 316). Therefore, primary appraisal investigates 'what is at stake for the person' (Lazarus and Folkman, 1984, pp. 315) and secondary appraisal involves 'the person's evaluation of coping options' (Lazarus and Folkman, 1984, pp. 315). As new information is received, reappraisal will occur and the individual will react accordingly, (Lazarus and Folkman, 1984, pp. 38).

To facilitate measurement of secondary appraisal the authors present four statements, which a participant would rate according to how relevant they felt it was to the specific stressful encounter under examination. These were;

1. You could change or do something about it.
2. You had to accept it.
3. You needed to know more before you could act.
4. You had to hold yourself back from doing what you wanted to do (Lazarus and Folkman, 1984, pp. 316).

Through these statements the authors suggest it is possible to obtain a 'partial picture of the state of mind underlying the person's choice of coping' (Lazarus and Folkman, 1984, pp. 316) here illustrating the close relationship between stress and coping. However they caution that 'appraisal is a process that occurs for a particular context and, therefore, trait or generalized dispositional concepts such as locus of control, a sense of coherence...and generalized beliefs about mastery or self-esteem do not apply' (Lazarus and Folkman, 1984, pp. 316 – 317).

Lazarus, 1993 suggested, 'Changing the relational meaning of what is happening is a very powerful – and widely employed – device for regulating stress and emotion' (Lazarus, 1993, pp. 238). These cognitions are termed 'reappraisals' (Lazarus and Folkman, 1984, pp. 148). Individuals do this by means of employing functions of coping, such as problem-focused and emotion-focused perspectives in order to adapt to the situation (Lazarus, 1993). As the situation begins to unfold, the individual can reassess the situation, the changes and the significance any such changes may have, as and when necessary. Lazarus and Folkman, 1984, suggest that 'The meaning of coping as a process can be seen in the long duration of grief work and the changes that take place over time, beginning with the moment of loss'

(Lazarus and Folkman, 1984, pp. 143). This indicates that coping may be related to the grief associated with a particular loss and may not be immediately resolvable.

1.4.4 Coping Resources within the Appraisal Process

Secondary appraisal occurs if primary appraisal suggests a stressful situation is likely to occur, or is actually occurring and the individual must do something to deal with the situation (Lazarus and Folkman, 1984, pp. 33). This perception of a stressful situation suggests that adverse conditions might require 'mobilization of coping efforts' to adequately deal with the situation (Lazarus and Folkman, 1984, pp. 32 - 33).

Lazarus and Folkman, 1984, stated that their process approach of coping has three main features; 'First, observations and assessments are concerned with what the person *actually* thinks or does, in contrast to what the person usually does, would do, or should do, which is the concern of trait approach. Second, what the person actually thinks or does is examined within a specific context. Coping thoughts and actions are always directed toward particular conditions. To understand coping, and to evaluate it, we need to know what the person is coping with. The more narrowly defined the context, the easier it is to link a particular coping thought or act to a contextual demand and third, to speak of a coping process means speaking of *change* in coping thoughts and acts as the stressful encounter unfolds' (Lazarus and Folkman, 1984, pp. 142). Lazarus suggested that '...coping changes over time and in accordance with the situational contexts in which occurs' (Lazarus, 1993, pp. 235).

Lazarus and Folkman, 1984, suggest that the coping process is influenced by the resources that an individual has available to them at any given time (Lazarus and Folkman, 1984, pp. 158). They suggest that self-esteem, mastery, health and energy, positive beliefs, problem-solving skills, social skills, social support and material resources will all to a greater or lesser extent affect the coping process (Lazarus and Folkman, 1984, pp. 158 – 164). Health and energy is classified as a physical resource, positive beliefs as a psychological resource and problem-solving skills and social skills as competencies (Lazarus and Folkman, 1984, pp. 159). Interestingly the authors seem to have the same problem as Hobfoll (1989), in categorising social support, choosing instead to group it with material resources as an environmental resource (Lazarus and Folkman, 1984, pp. 159).

Such coping resources seem to hinge on their usefulness to the individual and if the resource itself is in optimum condition (Lazarus and Folkman, 1984, pp. 159 – 160). They suggest that health for example, is not a good resource if the person is tired or physically ill and material resources such as money, cannot be used effectively if there simply is not enough (Lazarus and Folkman, 1984, pp. 159). So the appropriateness of the resource and its condition may be a factor in either deciding to use it, or even being able to consider it as an option. Also the individual may place heavy weight upon the perceived usefulness of the resource and may feel let down, thus further compounding the situation, if the resource fails to meet expectations (Lazarus and Folkman, 1984). The example cited illustrating this point is that of religion and belief in God to help and improve the situation, where if God does not seem to 'deliver' then hope may be lost and positive self-belief is no longer a resource but an added stress to the situation (Lazarus and Folkman, 1984, pp. 160).

The authors also address the issue of vulnerability reduction via resource stock-piling. In discussing money they suggest that 'simply having money, even if it is not drawn upon, may reduce the person's vulnerability to threat and in this way facilitate effective coping' (Lazarus and Folkman, 1984, pp. 164). That it may be possible to guard against future stressful events, or mitigate to use a disaster term, through planning and preparedness of resources and thus they agree that resources have a large role within the stress-coping process.

Personal constraints such as personal norms and beliefs, cultural values, disposition, personal agenda and basic understanding of the situation and its implications may all affect resource use and value in the coping process (Lazarus and Folkman, 1984, pp. 165 – 166). They suggest that external or environmental constraints such as competition for the same limited resources, damage or loss to available resources and secondary affects of disaster may also affect this process. The level of threat to the individual, how serious or imminent the situation might be, may force a different decision on what resources to use to cope with the situation. 'The greater the threat, the more primitive, desperate, or regressive emotion-focused forms of coping tend to be...' (Lazarus and Folkman, 1984, pp. 168).

To assess these issues within the stress and coping process Lazarus and Folkman (1984) devised the Ways of Coping Questionnaire, which sought to measure both primary and secondary appraisal. Sixty-seven items were developed to assess primary appraisal by asking a person what they believed was at stake in the specific encounter and what a person thought, felt or did to cope with various demands of that encounter (secondary appraisal) which could then be classified into coping types (Lazarus and Folkman, 1984, pp. 327).

This questionnaire is useful to understand the appraisal process within a particular situation but forces participants to endorse pre-defined items rather than allowing them to describe their experience within their own framework and with their own language. It also ensures that the data describing the appraisal process can be managed quantitatively and may further reduce a person's direct experience of a stressful event into pre-defined categories.

In conclusion, Lazarus suggests that his 'frame of reference has always been an epistemological, ontological, and theoretical approach that emphasizes individual differences, the cognitive-motivational-relational concepts of appraisal and coping, and a process-centered holistic outlook' (Lazarus, 2000, pp. 665). This means he views the appraisal theory of stress and coping as a sound investigation of the subject where justified belief is distinguished from opinion and that the theory deals with the very nature of being (reference here made to the New Oxford Dictionary of English to translate this complex terminology, 1998, pp. 620 and 1297). He continues by saying, 'The conceptual bottom line of my approach is the *relational meaning* that an individual constructs from the person-environment relationship' (Lazarus, 2000, pp. 665, italics in original).

1.4.5 Use of the Cognitive-Appraisal Theory in Disaster Research

The use of the cognitive-appraisal theory in disaster research appears to be limited, although there is much work on other types of stressors ranging from heart attacks and cancer, to death and coping with depression (Lazarus, 1993 and Coyne, Aldwin and

Lazarus, 1981). However this literature is outside the scope of this thesis and is not included.

Within the disaster field, research by Orlitzky (2000) on coping after organisational disasters examined Lazarus and Folkman's work on cognitive reassessment of an event in relation to story telling and the creation of meaning post-disaster. He also examined a similar concept in an earlier paper concerning the crash of TWA Flight 800 in 1996. In this paper reference to Lazarus's work is only cursory rather than a core component of the research in that '...disasters tend to be characterized by...excessive demands on individual coping...' (Orlitzky, 1998, pp. 55). However neither of these articles concerns natural disaster nor seeks to understand its effects on individuals using the cognitive-relational theory as an analytical framework.

Gibbs, 1989, examined the factors in a victim that preclude their susceptibility to emotional impact following disaster. She cited Lazarus's work with regards to the approach or avoidance method of dealing with stress (Gibbs, 1989, pp. 502) but did not directly test Lazarus and Folkman's theory in a natural disaster context.

Murphy (1986) whilst examining perceptions of stress, coping and recovery within a one to three year post-natural disaster period with bereaved participants in a US context, discussed Lazarus and Folkman's 1984 work on coping. She used this more comprehensively than other authors by examining it in relation to her theoretical framework to be used. She was interested here in the appraisal process that an individual undertakes when they ask themselves 'What is at stake?' (Murphy, 1986, pp. 65). When this question is posed it then necessitates further examination of how one is able to handle the situation they face.

She states that Lazarus and Folkman and other authors cited cannot find '...empirical support for a single recovery pattern following uncontrollable aversive events' (Murphy, 1986, pp. 65). Perhaps suggesting that there is no one pattern or procedure that an individual will go through to deal with a situation. One major finding of the research was that three years after the event there was a lack of resolution for the participants interviewed (Murphy, 1986, pp. 74). Resources, in particular material and social resources, assisted participants with their coping but that 'no clear patterns emerged regarding *who* was most supportive, rather, the major theme was *how* support was given...' (Murphy, 1986, pp. 71, italics in original).

Britton, Moran and Correy (1994) discussed stress and coping by emergency volunteers and suggest, based upon Lazarus and Folkman's 1984 work, that coping by this group in an emergency context may use both problem-focused and emotion-focused methods (Britton, Moran and Correy, 1994, pp. 134). They highlight that these two forms are usually seen as distinct and separate but that within the emergency context both may be employed. This suggests that the original delineation of categories was perhaps too strict and in reality within a disaster context, their boundaries are blurred as both are used interchangeably. Although this research does not use Lazarus and Folkman's theory as a framework for analysis it did raise the issue of whether it is appropriate in all situations to label coping used in such distinct and separate categories.

Kaiser, Sattler, Bellack and Dersin (1996) reference Lazarus and Folkman's work only in relation to the fact that '...disasters may tax and exceed survivors' adaptive resources' (Kaiser, Sattler, Bellack and Dersin, 1996, pp. 460). Smith (1996) examines coping as a predictor of outcomes and uses Lazarus and Folkman's 1984 work to help define factors to be examined for research into coping and subsequent outcomes following a US flood event.

Overall many psychological researchers investigating the field of disaster do seem to reference the cognitive-appraisal theory as it is commonly regarded as a seminal work on the subject of stress and coping. However, few use the theory in a practical manner – i.e. actually try and test the theory for its use and applicability within disaster situations with a clear methodology, rather many refer to it in passing only.

1.4.6 Hobfoll's Conservation of Resources Theory

In this section the second model used within this research is discussed. An overview of the Conservation of Resources (COR) model by Hobfoll (1989, 1998) is presented, the concepts of resources is explained within the category definitions and the issues of loss and coping as viewed from a COR perspective are examined. The discussion will then proceed to illustrate the range of use this theory has had within academic research and finally a summary of the salient arguments regarding both the COR and cognitive-appraisal theories concludes this section.

1.4.6.1 Conservation of Resources Model – An Overview

Previous discussion has touched upon the subject of resources and their use, impact and interaction within a stressful situation, without much definition or explanation of the term itself. The Conservation of Resources model (hereafter referred to as the COR model) was developed by Hobfoll in an attempt to provide a new perspective to conceptualising stress (Hobfoll, 1989). The basic premise is '...that people strive to retain, protect and build resources and that what is threatening to them is the potential or actual loss of these valued resources' (Hobfoll, 1989, pp. 513).

The author suggested that this theory, '...lays out a specific framework that leads to certain predictions, delineates the limits of the theory, and allows for a rejectable conclusion' (Hobfoll, 2001, 341). Hobfoll argued that the existing concepts and models were too ambiguous and could not be directly testable, leading to researchers '...choosing to study stress without reference to a clear framework' (Hobfoll, 1989, pp. 513). Indeed this observation may hold true as although Lazarus and Folkman developed the Ways of Coping questionnaire in 1984 to test appraisal within a coping context, the theory itself appears difficult to interpret for use within a non-questionnaire research design as previous discussion has demonstrated.

Hobfoll's resource based theory of stress and coping was one of several in the field of stress research, which offered resources as alternatives to the appraisal-based theory of Lazarus and Folkman (1984). Antonovsky (1979) suggested that a sense of coherence was a personal coping resource within the Holocaust to cope with illness within a health/stress context. Holahan, Moos, and Schaefer, (1996) offered a comprehensive review of existing resources research, including their own attempts at development of a coping based model of stress resistance. This was based on previous findings that individuals with resources were

more likely to use approach coping rather than avoidance coping (Holahan, Moos, and Schaefer, 1996).

Hobfoll (2001) suggests that resources are '...not individually determined' (Hobfoll, 2001, pp. 341) but rather are a product of culture. Perhaps this distinction is specified deliberately because to agree that resources may be individually determined allows speculation that appraisal is the primary key to understanding stress and not resources as the author contends. However, rather confusingly, Hobfoll (2001) states that appraisal is the '...best *proximal* indictor on the individual level of stress...' (Hobfoll, 2001, pp. 340, italics in original) whilst in the same article suggesting that '...the fit of personal, social, economic, and environmental resources with external demands determines the direction of stress responding and the resultant outcomes' (Hobfoll, 2001, pp. 339).

Resources themselves are defined as, '...those objects, personal characteristics, conditions or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions or energies' (Hobfoll, 1989, pp.516). These are '...valued entities...' (Hobfoll, 2001, pp. 341) that are '...both transcultural and products of any given culture' (Hobfoll, 2001, pp. 341) and he believes that his original set of 74 resource items does '...have validity in many Western contexts...' (Hobfoll, 2001, pp. 341). However, upon closer inspection of the empirical evidence proffered for this list of 74 items (Hobfoll, 1998), it appears that 'many Western contexts' may actually only be relating to Dutch/US psychologists and US students/US community samples that the initial list was developed and tested on respectively (Hobfoll, 1998, pp. 70).

Hobfoll defines psychological stress is as '...a reaction to the environment in which there is (a) the threat of a net loss of resources, (b) the net loss of resources, or (c) a lack of resource gain following the investment of resources. Both perceived and actual loss or lack of gain are envisaged as sufficient for producing stress' (Hobfoll, 1989, pp. 516). Again this model highlights the objective and subjective nature of the stress and loss process and suggests that loss may not necessarily have to be objectively concurred as having transpired as the perception of loss is sufficient to produce stress.

In an attempt to illustrate the nature and complexity of resources Hobfoll, 1998, suggested that three separate categorisations of resources were particularly helpful in understanding the resources concept. Categorisations such as internal versus external resources, structural resource classification (explained further in this section) and centrality of resources to survival (Hobfoll, 1998, pp. 57 – 59) were defined.

The internal-external classification states that a resource is either internal, such as '...those that are possessed by the self or are within the domain of the self.' (Hobfoll, 1998, pp. 57) or external, such as, '...those resources that are not possessed by the self...' (Hobfoll, 1998, pp. 57). Examples of internal resources are job skills, mastery or optimism and external resources could be social support, employment or economic status. This follows on from previous stress theory by acknowledging and trying to map, the presence of internal and external factors affecting stress but in this case they are termed 'resources'.

Classification of the centrality of resources to survival suggests that resources can be further divided into Primary, Secondary and Tertiary resources, depending on their necessity for survival (Hobfoll, 1998). Primary resources include food, water or shelter – the basics for safety. Secondary resources would be those that contribute directly to attainment or complement primary resources, such as social support, hope and marriage. Tertiary resources are related to the first two in that they are not directly necessary for physical survival or emotional well-being, but they increase an individual's social status, social conditions or access to other resources more easily (Hobfoll, 1998, pp. 60).

1.4.6.2 Structural Resource Classification

The other type of classification Hobfoll (1998) suggests is that of Structural Resource Classification. Hobfoll (1989) classifies resources generally in terms of object, condition, personal characteristic, energy or social support categories:

Object Resources - These are valued because of some aspect of their physical nature or because of their acquiring secondary status based on their rarity and expense. Examples of object resources are a house, a car or personal possessions (Hobfoll, 1989, pp. 517).

Conditions - Resources to the extent that they are valued and sought after and that they provide a secure foundation to access other resources – i.e. marriage, health, tenure or seniority. The COR model suggests that measuring the extent to which conditions are valued by individuals or groups may provide insight into their stress-resistance potential (Hobfoll, 1989, pp. 517).

Personal Characteristics - 'Resources to the extent that they generally aid stress resistance' (Hobfoll, 1989, pp. 517). These are internal skills and abilities that are inherent or trait-like within the individual, such as optimism, confidence, dedication or an analytical mind.

Energies - Valued as to how they aid the acquisition of other kinds of resources via exchange. These types of resources '...can be invested or retained in order to enhance acquisition, protect against resource loss, or combat loss cycles once they begin'(Hobfoll, 1998, pp. 59). Examples include time, money, credit or knowledge.

Social Support - Social support does not fit into any one category. It is a resource to the extent that it provides or facilitates the preservation of valued resources but can also detract from individual's resources (Hobfoll, 1989, pp. 517). In addition social supports effect seems to hinge on its value in promoting or supporting a positive sense of self and a view that one can master or at least see through stressful circumstances (Hobfoll, 1989, pp. pp. 517). Such support can come from family, friends or the wider community whether personal ties exist or not (such as the local authority response to disaster stricken residents).

Hobfoll originally devised a list of items via focus group work where he asked each sub-group to write a list, which was then circulated between groups until all items not agreed upon were removed and those new items put in were discussed (Hobfoll, 1998, pp. 69 – 70). This was to examine the issue that resource loss was more salient that resource gain (Hobfoll, 1998, pp. 69). This list of 74 items included both physical entities such as

'Personal Transportation' and 'Adequate Clothing' as well as the more subjective ones such as 'Free Time' and 'Sense of Humour', although it did not make any attempt to differentiate between the two classifications (Hobfoll, 1998, pp. 71). This list of items formed the basis for the COR-E questionnaire – the Conservation of Resources Evaluation questionnaire. This questionnaire is for use within a quantitative research methodology as it asks respondents to state what extent they had lost them during a predefined time period and to give indication of how important and the extent of that loss was.

1.4.6.3 Concepts of Loss and Coping within the COR Model

Hobfoll (1989) suggests that loss is central to threat – that most items on stressful event surveys are loss items such as death of a spouse, fired at work or retirement (citing as support for this view Holmes and Rahe's, 1967 Social Readjustment Rating Scale). Referring to these items Hobfoll (1989) suggests these are given the strongest severity weighting when weights are assigned to items, therefore clearly supporting the notion that items that reflect loss are the most psychologically threatening (Hobfoll, 1989, pp. 518).

This may be true for most items on the scale but how does this account for items such as marriage, marital reconciliation or change in recreation/social activities or eating habits, all specified on the list, which may have positive connotations not associated with losses but may regarded as gains? For example a change in eating habits could actually be positive is the individual in question suffers from an eating disorder but is on the path to recovery. Marital reconciliation may also be regarded as a positive life event and not necessarily a 'loss'.

Hobfoll, 1998, does suggest that a Life Event item (such as divorce) is only the start point and that to totally understand if the situation is stressful one must examine the resources lost or gained and the balance of these, to fully appreciate the situation (Hobfoll, 1998, pp. 66). That a woman may lose 'finances, insurance, self-esteem, and trust but gains freedom and hope' (Hobfoll, 1998, pp. 66) in the process of a divorce and that the balance of these is what influences her, then surely this is outcome is finally determined through a process of appraisal? The woman examines her situation and asks, 'What have I lost, what have I won and how do I feel about this?' She may have lost furniture, finances and a car but if she perceives the situation or its resulting losses to be ultimately favourable to her overall, these losses (the resources) will not impact upon her and cause stress.

This leads on to another COR concept, that of saliency of loss. Hobfoll states that if the loss does not directly affect the individual it becomes less salient (Hobfoll, 2001, pp. 343). That if there are equal amounts of resource loss and resource gain, the loss will have a 'significantly greater impact' (Hobfoll, 2001, pp. 343). The author suggests that saliency of loss is related to the 'shared cultural nature of loss and gain assessments' (Hobfoll, 2001, pp. 343) and has less to do with individual appraisal thus differentiating the COR model from appraisal-based theories. That it is generally held assumptions or beliefs about the loss of a particular item, which govern saliency and not personal appraisal. This differentiates from the work of Lazarus and Folkman 1984, who place primary importance upon personal perception and appraisal not external generalisations.

Hobfoll, 1989, states that individuals may employ other resources to offset loss – i.e. replacement, but when direct replacement is not possible, symbolic replacement or replacement through indirect means may be possible (Hobfoll, 1989, pp. 518). But also that employing resources for coping is also stressful and depletes other resources (Hobfoll, 1989, pp. 519). This can lead to a loss spiral – where individuals after using other resources to offset loss, find that they are without the necessary resources to offset further loss (Hobfoll, 1989, pp. 519). But people do not have equal resources and those who lack them anyway, such as single mothers, would be more vulnerable to additional losses (Hobfoll, 1989, pp. 518 – 519). Therefore, understanding of the context in which the stressor occurs and the group affected can help to assess the true extent of the loss experienced.

Even when perception is important, normative tendencies regarding how resources are evaluated and what constitutes loss guide individuals' assessment of their environments and themselves (Hobfoll, 1989, pp. 519). Hobfoll suggests two separate ways individuals may appraise resources loss. One way people can conserve resources is by reinterpreting threat as a challenge, thereby shifting the focus of attention (Hobfoll, 1989, pp. 519).

People may also combat their sense of loss by re-evaluating the resources and their value, which can be the simplest course for most people, because rather than combating or enduring the stressor and its subsequent aftermath, people merely alter their interpretation of the event and its consequences (Hobfoll, 1989, pp 519). Indeed Schwarzer, 1998, suggests that 'Appraisals are determined simultaneously by perceiving environmental demands and personal resources. They can change over time as a result of coping effectiveness, or improvements in personal abilities' (Schwarzer, 1998, pp. 531).

Resource assessment may be derived from people's basic values and developmental history – what they have learned through experience is valuable to them but Hobfoll cautions that although minor reappraisals may buffer the brunt of stressors impact, on a larger scale this could backfire and lead to insecurity and despair at the situation (Hobfoll, 1989, pp. 519). This illustrates that appraisal and personal perception are together key to understanding the loss of resource impact and to separate the concepts of resources and appraisal is perhaps unhelpful.

1.4.6.4 Previous Use of COR Model in Disaster Research

Harvey, Stein, Olsen, Roberts, Lutgendorf and Ho, 1995, conducted a study following the 1993 flooding in Iowa, USA, in which they examined loss and recovery following natural disaster. The authors attempted to assess if 'serious loss' had occurred, if psychological distress had occurred and how participants coped with the disaster, either positively or negatively. Respondents were asked to write down specific material losses on the questionnaire, thus not confining respondents to pre-defined options but the authors did not specific intangible losses as a loss to be examined. No attempt was made to link specific losses with specific coping activities rather participants were asked what they felt they had lost and what they did to cope with the disaster as a whole, not for each type of loss identified.

A study by Freedy, Shaw, Jarrell and Masters, 1992, used the COR model as a template to understand short-term adjustment following natural disaster. The researchers used a 52-

item Resource Questionnaire – modified from the 74-item COR-E scale developed to measure resource loss. The authors suggest that their revised scale is more suited to measuring loss following natural disaster (Freedy, Shaw, Jarrell and Masters, 1992, pp. 446). In this study, the COR model was used as a framework to examine the impact of adverse experiences on individual functioning following natural disaster.

This quantitative study with a US sample showed that experience of resource loss, the role of individual differences in resource availability and that vulnerability to resource loss can be recognised by including personal characteristics and coping behaviours as predictors of post-disaster psychological distress (Freedy et al., 1992). However, the authors suggest that the type and extent of resource loss may be a strong factor in determining optimal coping strategies (Freedy, Shaw, Jarrell and Masters,1992, pp. 452).

Smith, 1996, examined the relationship between coping and outcomes following the 1993 Midwest Flood. He found that coping predicted outcome after controlling for demographics and flood exposure and that active coping was associated with less psychological distress and more flood-related positive effects at the two times measures were taken (Smith, 1996, pp. 234). Avoidance coping was associated with greater psychological distress (Smith, 1996, pp. 236). Conversely Freedy, Shaw, Jarrell and Masters, 1992, note that 'increased emotion focused and disengagement focused behaviour can lead to an increased sense of control and less psychological distress (Freedy et al., 1992, pp. 452) illustrating some disagreement in the literature although this may be due to methodological or contextual differences.

Active coping was seen to be more effective than avoidant coping (Smith, 1996) and concurs with previous research with flood victims, which contends that those who adapted to the situation positively and engaged in activities such as private reflection or confiding in others fared better (Harvey, Stein, Olsen, Roberts, Lutgendorf and Ho, 1995).

Freedy, Saladin, Kilpatrick, Resnick and Saunders 1994, examined the pre, within and post-disaster variables within the coping/outcome relationship and subsequent mental health outcome. These include – pre-disaster – demographics, mental health history and high and low magnitude life events. And within-disaster – disaster exposure, cognitive appraisal of exposure and post-disaster risk factors were basic needs, initial distress level, stressful life events, resource loss, coping behaviour and social support (Freedy, et al., 1994, pp. 262 - 264).

This model suggests variables that may need to be controlled for in quantitative studies because they are chronologically prior to coping behaviour. The authors highlight a current issue in that few studies have looked at the positive effects of disaster, as most focus on the negative. It also links the two concepts of appraisal and resources within a disaster situation examining the impact both may have upon the coping and outcome relationship.

Smith and Freedy in 2000 examined the role of psychosocial resource loss in the aftermath of the Midwest flooding, USA. Psychosocial losses included loss of routine, loss of sense of control, loss of sense of optimism, loss of accomplishing goals and loss of time with loved ones (Smith and Freedy, 2000, pp. 349). These losses are of a more subjective nature

but were aspects of life prior to the event reported as being 'lost'. Psychosocial resource loss mediated the effects of flood exposure on both psychological distress and physical symptoms at six months post-flood (Smith and Freedy, 2000, pp. 353). This suggested that interventions designed to prevent psychosocial resource loss may reduce the long term effects of disasters.

One interesting issue the authors raise is that of developing a separate measure which examines whether or not resource loss is directly related to disaster exposure, as opposed to just collecting data post-event that relates to how much resource loss had occurred since the disaster (Smith and Freedy, 2000, pp. 350). The implication here was to try and discover how much resource loss was in fact due to the disaster only as opposed to any other reason. Examining a similar issue within a qualitative structure it would therefore be necessary to ensure that any loss reported was perceived to be as a direct result of the disaster and that participants were directed to consider this fact before giving their response.

A study by Norris and Kaniasty, 1996, evaluated the impact of receiving social support on subsequent levels of perceived social support and psychological distress in two independent samples of victims of Hurricanes Andrew and Hugo. They suggested that post disaster mobilisation of support counteracts the deterioration in expectation of support often experienced by survivors of disaster (Norris and Kaniasty, 1996, pp. 498). Also, that perceived support can mediate the long-term effects on distress of both scope of disaster exposure and post disaster received support (Norris and Kaniasty, 1996, pp. 508).

The authors found that flood victims experienced the impact of the disaster directly – through immediate exposure to trauma and indirectly – through deterioration of perceived social support (Norris and Kaniasty, 1996, pp. 507). Those of lower socio-economic status receive less help than others despite of equal or greater need and it appears that social support is mobilised at community level but is not always equally distributed (Norris and Kaniasty, 1996, pp. 508). When adequate help is received it may block the spiral of resource loss that renders victims even more vulnerable to the impact of the stressor (Norris and Kaniasty, 1996, pp. 509). This concurs with Hobfoll's (1989) assertion that a spiral of loss can occur and that resource replacement offsets further loss (1989, pp. 518 – 519).

Sattler, 2002a and 2002b, examined the issues of September 11th and an earthquake in El Salvador using the COR model as a framework for both research projects. In Sattler 2002a, the author cites Hobfoll, 1989, stating that energy resources are those such as money (2002a, pp. 3 of 14) whereas in Sattler 2002b, he places time within an object resource category in his analysis, calling it a 'basic object resource' (Sattler, 2002b, pp. 10 of 12, underlining not in original). There appears to be confusion between the two papers as to what types of resources fit into which categories thus highlighting Hobfoll's observation that although he is able to produce a comprehensive list, '...not all resources are easily catagorized, and this also presents a problem' (Hobfoll, 1998, pp. 59). Hobfoll asks if '...health is a condition resource or a personal resource...?' (Hobfoll, 1998, pp. 59).

1.4.7 Cognitive-Appraisal and COR Models – Contrasting Views

There has been much debate about the use and value of the COR model and its applicability and relevance to the loss-stress-coping field of research since its introduction in 1989.

Hobfoll intended it to stand as a bridge between the two fields of environmental (social) and internal process (behavioural) views on stress (Hobfoll, 2001, pp. 338) but it has been a source of contention from both sides. Not least of all because of the author's comment that 'Resource-based theories of stress, among which COR is one...directly challenge appraisal-based stress theories...' (Hobfoll, 2001, pp. 339). Although he is keen to point out that the COR model does not '...disregard appraisal...' (Hobfoll, 2001, pp. 339) rather it places emphasis elsewhere, upon resources.

Hobfoll (2001) suggested some limitations of the COR theory that he had not previously discussed elsewhere. Hobfoll does concede that some resources may be different or even a hierarchy of resources may exist when he states, '...much research evidence suggests that there exist key resources, such as self-efficacy, self-esteem, optimism, and social support' (Hobfoll, 2001, pp. 360). However, he offers little evidence of what research specifically he is alluding to.

Lazarus and Folkman's 1984 revision of their theory has driven the field for several decades and Hobfoll (2001) suggests that paradoxically, this great achievement has actually been detrimental to the field of stress research as many who followed simply assessed stress from an appraisal viewpoint rather than from the wider transactional model that Lazarus and Folkman proposed (Hobfoll, 2001, pp. 340).

Hobfoll (2001) suggests that from Lazarus and Folkman's point of view the best proximal indicator for stress levels is personal appraisal but that this is flawed in two ways. Firstly, he believes that in order to '...obtain appraisals we must wait until the proximal-moment where stress occurs and constantly hark back to the individual for his or her assessment at that state and time. This limits predictive strength and provides few insights for groups or systems. Secondly, the study of stress appraisal has yielded little information about why people make certain appraisals...' (Hobfoll, 2001, pp. 340 – 342). He suggests that '...resources not cognitions, are the primum mobile on which stress is hinged...Cognition is the player and not the play' (Hobfoll, 1998, pp. 22).

Lazarus (2001) in contrast, opines that Hobfoll is simply reinventing the wheel. That his arguments lack substance, his theory lacks merit (Lazarus, 2001, pp. 390) and that to say Lazarus and colleagues do not approach stress theory by paying attention to resources, is false (Lazarus, 2001, pp. 382). Further, that 'If appraisal theory works better than any other approach and, methodologically speaking, does essentially what Hobfoll does to evaluate the so-called objective environment, then why do we need the COR theory?' (Lazarus, 2001, pp. 385). Lazarus cites several of his own works in order to illustrate how he feels Hobfoll has either misinterpreted or (a little more sarcastically) has failed to even read his work (Lazarus, 2001, pp. 382).

One core argument concerns the term resources and Hobfoll's definition of them. When Hobfoll uses the term 'resources' Freund and Riediger (2001) ask, 'Resources for what?' (pp. 372). 'The notion of resources requires the specification of the tasks or demands they might help to achieve' (Freund and Riediger, 2001, pp.373). This indicates that the authors believe that understanding resources on their own is not particularly useful without knowing the aim of their use, suggesting that the concept of resources needs to be placed

within a wider context. Lazarus (2001) also questions Hobfoll's stance on the resource-goal relationship countering that it is not the resources which are important, but the goal which they are used to achieve, 'Resources must serve the goals rather than the other way round' (Lazarus, 2001, pp. 383). That it is the purpose they serve, not the resources themselves that are primary.

Lazarus and Folkman discuss resources in that they determine psychological vulnerability by '...the relationship between the individual's pattern of commitments and his or her resources for warding off threats to those commitments' (Lazarus and Folkman, 1984, pp. 51). Here, the issue of resources within the stress process is examined as just a means to an end – to reduce danger and thus avert stress within a coping process. Whereas Hobfoll (1989) describes stress in terms of resources and suggests that they '...are the single unit necessary for understanding stress' (Hobfoll, 1989, pp. 516), thus giving them a much larger role in stress research. It is this factor that the two theories diverge on. Hobfoll believes resources are vital to understanding stress whereas Lazarus and Folkman believe the key is appraisal and that resources are merely a part of the stress process overall.

But even the COR model's supporters have their concerns. Quick and Gavin, 2001, state that the '...Conservation of Resources (COR) theory is a valid, robust, important theory in the domain of stress that deserves an even wider range of audiences than it currently enjoys' (Quick and Gavin, 2001, pp. 392). But they acknowledge '...that there may be some devils in the details' (Quick and Gavin, 2001, pp. 392) perhaps suggesting that the model may contain flaws.

Schwarzer (2001) prefers to state that Hobfoll and Lazarus are essentially arguing two sides of the same coin, which spins on the definition and use of objective and subjective resources. 'Lazarus sees objective resources only as antecedents that may have an indirect effect, whereas subjective resources (resource appraisals) represent the direct precursors of the stress process. In contrast, Hobfoll, considering both objective and subjective resources as components, lends more weight to the former' (Schwarzer, 2001, pp. 403). Here antecedents are taken to be '...personal resources such as wealth, social networks, competencies, commitments or beliefs on the one hand, and objective demands, critical events, or situational constraints on the other' (Schwarzer, 2001, pp. 401). 'Viewed from a process perspective, Lazarus deals more with initial appraisal, whereas Hobfoll deals more with prior objective resource status and subsequent coping' (Schwarzer, 2001, pp. 403).

It may be suggested therefore, that the two key theories of Lazarus and Hobfoll, might actually work better if their strengths are combined rather than their differences exaggerated. To examine stress, loss and coping in terms of both objective and subjective resources but within an appraisal centred process might provide the best practical use of the information gleaned from participants. Both authors acknowledge the use and impact of the others theory but prefer (naturally) to lend weight to their own, almost disregarding the influence the other has on the individual within any given situation.

Whilst academically interesting, it is ultimately a little unhelpful to the field of stress theory as a whole because to reduce the concept to a war of semantics undermines the real need for comprehensive and holistic stress research. In order to effectively examine the subject

the various strengths of each theory should be combined and tested to give a rounded picture of the individual's stress experience, the losses they face and the subsequent coping they employ to deal with these. It is this researcher's belief that both models are valid and useful frameworks for examining the construct of stress and loss within a disaster context, but to conduct research from just one viewpoint at the expense of the other is detrimental to the issue under investigation. Stress, from previous literature cited here encompasses a range and depth that includes both objective and subjective components and to examine one without the other may only examine half the issue.

1.5 Loss

1.5.1 Introduction

This section will discuss the concept of loss beginning with examination of previous loss research and its constraints. The limitations of loss models will be highlighted and the problems with definition of the term 'loss' will also be shown. The impact that perception and appraisal have upon loss and an individual's experience of it is considered before this review examines the concept of objective and subjective loss. Finally the roles of meaning, identity and sense of control within the loss experience are discussed.

1.5.2 Previous Loss Research

Previous loss models have concentrated on the concept of the pathology of loss with accepted stages of the grieving process that one must go through in order to reach an end goal of 'normality' once again. They indicate that some loss coping processes may ultimately be regarded as 'good' or 'bad' suggesting a right and wrong way to deal with loss. Whilst this prior research has assisted in our understanding of the concept, it has also allowed several issues to continue unchecked thus limiting the field. As this researcher's project did not intend to use a loss model as the framework, a cursory appreciation only of previous models is presented to illustrate the development in the field.

The concept of 'grief work' was researched by Lindemann, 1944, who suggested that the bereaved should detach themselves from memories and thoughts of the deceased in order to successfully complete their 'grief work' (Lindemann, 1944, pp. 147). He proposed reactions that were destructive and helpful indicating a right and wrong way to grieve and that a process could be followed to achieve normality or a successful conclusion. However, Miller and Omarzu, 1998, stated that, 'Psychoanalytic theory focuses on the individual emotional response to loss. It pays little or no attention to larger social forces or interactions with others. It also does not apply well to losses other than those of bereavement...' (Miller and Omarzu, 1998, pp. 8) thus highlighting its limitations.

Researchers attempted to concentrate on how to best help individuals get back to normality as soon as possible and thus cope with the loss (Bowlby, 1982 and Kubler-Ross, 1969). Bowlby (1982) summarised previous work on the effects of maternal separation, loss and deprivation to children with regards to personality development and subsequent negative psychological effects. This was commonly referred to as attachment theory (Bowlby, 1982, pp. 664). Kubler-Ross (1969) also contended that an individual, in coping with a loss will pass through stages of 'grieving' before having dealt with the loss and thus returned to

'normality' (Kubler-Ross, 1969). Kubler-Ross's model was originally intended as a method for dealing with terminal illness but it has been used more generally '...as a description of reactions to loss...' (Weiss, 1998, pp. 348). Although these theories do relate to a phase-response to loss, the former concerns personality development and trait formation in the young and the latter terminal illness, therefore it is not within the scope of this thesis to examine these further.

Implicit in these theories is that an individual must grieve for their loss within a pre-determined time frame with clearly identifiable and mutually exclusive stages, that 'Logically, one and only one of the phases should characterize the state of the griever at any particular time' (Weiss, 1998, pp. 348). Weiss (1998) suggests that many researchers agree that there '...is a weak form of the proposal of invariable sequence, in which denial is most likely on first awareness of the loss, protest most likely early in bereavement, and reaction most likely later on' (Weiss, 1998, pp. 349). However this pattern does not conclusively explain all forms of loss and the individual reactions to it and care should be exercised in trying to make an individuals reaction to any form of loss fit a predetermined model.

Miller and Omarzu, 1998 summarise previous work stating that it is unhelpful to assume that there is such a thing as 'unhealthy grief' that prolonged grief = pathology and that it is something that one must get over as quickly as possible (Miller and Omarzu, 1998, pp. 9). Grief is not a disease caused by loss that after a pre-defined and universally accepted period of time simply 'goes away' or becomes less important. Rather it is an experience that '...accepts that individuals who suffer a loss may never completely return to their pre-loss state and...that this may not even be the optimal goal. Instead the aim is to survive the loss, come to terms with the changes, and integrate oneself into a new social context or identity' (Miller and Omarzu, 1998, pp. 9).

Post disaster this may be especially true as research suggests that the after-effects of disasters may last for some time afterwards, as was evident in Buffalo Creek post-flood in which disaster effects were observed two years afterwards (Titchener and Kapp, 1976, pp. 296).

Miller and Omarzu, 1998, suggest that current literature on loss research is 'largely disjointed, disorganized, and descriptive' (Miller and Omarzu, 1998, pp. 8). They continue, '...we are not simply arguing that more loss research needs to be done. Rather, we suggest that too much loss research has been conducted that has not been grounded in a larger theoretical context' (Miller and Omarzu, 1998, pp. 8). They conclude that '...unless loss research is placed within pre-existing or newly developed theoretical models, this area (loss research) will continue to be disjointed' (Miller and Omarzu, 1998, pp. 8).

1.5.3 Defining Loss

Whenever the term 'Loss' is used in the substantial volume of literature that exists, it tends to suggest negative situations involving death, destruction or deprivation, rather than a positive or enjoyable experience. As Miller and Omarzu, 1998, state, 'The term loss suggests that we no longer have someone or something that we used to have' (Miller and Omarzu, 1998, pp. 4).

It is generally accepted that there are major or minor losses. A major loss would be the death of a spouse, whereas a minor loss would be loss of a possession to which relatively little attachment or weight was placed (Harvey, 2001, pp. 840). The individual may undertake some form of judgement or appraisal by determining the level of importance such a loss has for them. This suggests that there are underlying factors both subjective and objective, which affect how we define and perceive loss.

Harvey (2001) suggests that one definition of major loss is, '...a reduction in resources, whether tangible or intangible, that involves a significant emotional investment in the resources by the person(s) experiencing the loss' (Harvey 2001, pp. 840). This definition suggests that resources are a fundamental aspect in understanding loss and its impact. Hobfoll, 1998, stated that what is threatening to people is 'the potential or actual loss of these valued resources' (Hobfoll, 1989, pp. 513). Therefore by definition, to feel threatened by a potential or actual loss there must have been some form of emotional investment in the resource in the first place and hence an equal or greater emotional discomfort at its loss. Indeed Hobfoll states that resource loss is disproportionate to resource gain, in that losses are felt more keenly than gains (Hobfoll, 1998, pp. 62).

Harvey and Miller, 1998, argue that in order to define major loss, one must first hold a combination of subjective and objective markers to enable accurate definition. By their reasoning a subjective indication by the individual that he or she has experienced a major loss and an objective concurrence by knowledgeable others, must be present to enable accurate definition and recognition of the existence of a major loss (Harvey and Miller, 1998). But this seems to suggest that if an objective concurrence is not available then loss, as subjectively experienced by the individual, has not taken place.

Harvey, 2001, states that there are three exceptions to the common subjective-objective markers definition of major loss he outlined in previous work. Firstly, if the individual perceives a loss has occurred but the outsiders, through a combination of socialisation, culturally indoctrinated prejudice or discriminatory bias disagree, then in such a situation, 'the individual's perception takes priority' (Harvey, 2001, pp. 840).

A second exception is if the outsider's view of the relative events suggests that the individual's view is too idiosyncratic (Harvey, 2001, pp. 840). The outsider, by virtue of assessing the situation objectively and in relation to other loss, could accept that although the individual 'feels' that major loss has occurred and is going through the motions of the grieving process, in fact major loss has not taken place, hence the outsiders view takes priority (Harvey, 2001). Here a lack of saliency allows objectivity in understanding if loss has taken place, but makes no allowances for the fact that the affected person actually believes they have lost something that was significant enough to warrant their grief at its disappearance.

A third exception is if the individual does not acknowledge nor perceive that they have experienced a major loss, even though observers clearly view the situation as being a major loss (Harvey, 2001, pp. 841). A reverse of the previous exception, but here again the outsiders view takes precedence over the perception of the individual involved.

It seems that there are a multitude of variables which affect this 'insider-outsider' (Harvey, 2001, pp. 841) relationship and hence how loss is defined, ranging from type of loss, who is actually affected and perceptions surrounding the loss (Harvey, 2001, pp.841). Therefore, actual mapping of these markers boundaries would be difficult and hence it is uncertain as to who or what determines that a loss has occurred.

'General to the psychology of loss are principles that may underlie most major losses. Included among these principles...are: (a) Major losses are relative, (b) major losses may have cumulative impacts on us, (c) major losses often contribute to facets of identity change, (d) major losses involve adaptation to loss of sense of control, and (e) important coping strategies for dealing with major losses involve working on the meanings of these losses and learning how to give back to others based on our lessons of loss' (Harvey, 2001, pp. 839 – 840).

That perception of each loss is relative to another experienced personally or observed in others, that a perceived loss can create changes of identity or sense of control, that there may be a need for meaning to be sought and all of these may affect how we appraise and cope with the loss. These factors all interact to a greater or lesser extent to affect the individual's experience of the loss event and the outsiders' definition of it. Indeed, this concurs with Hobfoll's suggestion that stress (as the result of a loss) is a product of both internal and external processes combined (Hobfoll, 2001).

Lazarus (2001) suggests that individual perception and appraisal determines how a person will deal with life and its many situations. 'Not only do people want to perceive and appraise what happens realistically, but they also want to put events in the best light possible so as not to lose their sanguinity or hope. So the subjectivism you will see here, if that is what it should be called, is really a compromise – perhaps a better term would be process of negotiation – between the objective conditions of life and what people wish to fear' (Lazarus, 2001, pp. 5).

1.5.3.1 Objective and Subjective Losses

Rando, 1988, suggests that there are two types of loss; there are physical losses, where something tangible has been made unavailable (such as death of a spouse) and symbolic losses, where there are abstract changes in one's psychological experiences of social interactions (such as lost status due to demotion at work). These are experienced as losses by the individual but are perhaps less readily observable or quantifiable.

Harvey, Stein, Olsen, Roberts, Lutgendorf and Ho (1995) in reviewing loss narratives from natural disaster, suggest that examples of less quantifiable types of loss could include, '...loss of plans for the summer...loss of holidays...loss of pets...deterioration of health...and psychological effort in worrying about...the floodwaters' (Harvey et al., 1995, pp. 314).

This is confusing, as according to Harvey and his colleague's the loss of a pet because it does not hold any monetary value per se, is regarded as a '...less quantifiable loss...' (Harvey et al., 1995, pp. 314) even though it is the loss of something, which is clearly physical – a dog. Likewise, when the holder of the high-prestige job (Rando, 1988)

suddenly becomes demoted (classified as a symbolic loss, but one with a potentially physical consequence such as lower income) and the individual does not currently hold the position, surely a tangible or objectively observable loss has occurred? If the 'deterioration of health' (Harvey et al, 1995, pp. 314) has a physiological impact does this mean it is an any less quantifiable loss, bearing in mind a multitude of assessment methods both physical and psychological now exist for diagnosis purposes? And what happens if a loss includes both a physical and a subjective element?

Furthermore, Mikulincer and Florian, 1996, state categorically that '...loss involves an objective referent, the disappearance of a significant object or person' (Mikulincer and Florian, 1996, pp. 554). This does not readily appear to account for intangible losses such as loss of feelings, states of mind or emotion or subjectively held assets such as privacy, security or sense of control.

This does however illustrate the inherent problem in identifying and assessing loss. Loss of buildings, infrastructure or items of universally objectively accepted monetary worth can be calculated and the impact of the loss be given an easily understandable value (usually in financial terms). Items with personal significance and possibly little or no financial worth cannot be easily calculated using traditional loss estimate procedures and therefore the impact the loss has is harder to understand for others not directly affected. Hale-Haniff and Pasztor, 1999, in discussing the topic of subjective experience and communication therapy with reference to the consciousness, state, '...the field of cognitive science seemed 'stuck' on questions such as whether it is possible for a third person to know a first person's subjective experience' (Hale-Haniff and Pasztor, 1999, pp. 1 of 25).

Lazarus, 2001, cautions us to 'Bear in mind that the word 'objective' can only refer to a subjective consensus among a sample of people about how they appraise a given reality. About certain facets of that environment there is likely to be little disagreement. About others - for example, the significance of valued objects, such as money or precious metals and the emotional meaning of what is happening - there will usually be substantial variation. There is, in effect, no such thing as an objective environment, except as it is inferred from a subjective consensus. What is taken to be the consensus, however, is seldom the total appraisal that is made of environmental conditions but a partial one. And this consensus is often irrelevant when it comes to any given individual' (Lazarus, 2001, pp. 385).

Perhaps simplifying this a little, it is inferred that an individual's objective view of any given situation or person is only as good as the pool of subjective experiences the individual bases their own appraisal on (which would be generated from experience, norms, beliefs and expectations throughout their lifetime). So in reality one person cannot know and understand, in a wholly objective manner, another person's subjective experience, because objectivity, per se, cannot exist. And the irony of it all is that even if objectivity in its purest form did exist, it would not matter anyway because the nature of the individual is to place his or her own perspective and appraisal above that of any consensus that might be in place (Lazarus, 2001).

This literature highlights the inherent problem when trying to assess loss that is more subjective in nature. This type of loss is not necessarily observable and cannot always be concurred that it existed in the first place and has been subsequently lost. This means the outsider has to have a certain amount of faith in that individual to relate what has happened and why it is a loss. The outsider may have to accept this as the truth that a loss has occurred because ultimately the affected individual is the one who know best whether or not it happened and how much it has affected them. The challenge lies in transforming their experience or story, into knowledge, which is more readily transferable to other situations so that new insights can be made about this complex issue.

1.5.4 Searching for Meaning

The concept of meaning as it relates to loss has been briefly touched upon previously in this thesis with regards to how a loss is coped with. Reappraisal (and thus finding a new meaning) is one method of coping but also narration of the loss or story telling to others is a second form of finding meaning within loss.

Activities of a person typically unresolved with their loss could include preserving 'parts of their homes or physical worlds' perhaps 'in part because of a sense of devotion' to the lost person and in part because of a 'bondagelike commitment to the memory of the lost other' (Harvey et al., 1995, pp. 233). Although the work of Harvey and his colleagues relates to one of the worst forms of loss, that of death of a loved one, such preservation activities and need to make sense or find meaning may be evident in other extreme situations.

Another strategy for finding meaning following serious loss is use of the life scheme model, whereby an individual can adapt following the loss and thus ensure that cognitive representation of one's life scheme is not wholly inconsistent with the event (Thompson and Janigian, 1988). This can be done through reordering priorities, changing ones goals so that they are achievable, reinterpreting the event or comparing oneself to others who are perceived as worse off (Thompson and Janigian, 1988 pp. 23).

Such actions assist the individual to view the event as not as negative as originally perceived and thus perhaps, are ways to find meaning (Thompson and Janigian, 1988 pp. 23). This concept of reappraisal concurs with Hobfoll's COR model (1989) and Lazarus and Folkman's Cognitive-Appraisal theory (1984) in that reappraisal of the situation is seen as a viable course of action in order to achieve a certain result following a stressful situation.

Niemeyer, 2001 suggests it must be recognised that 'whatever the status of an external reality, its meaning for us is determined by our constructions of its significance, rather than the 'brute facts' themselves' (Neimeyer, 2001, pp. 263). Again, concurring with Lazarus's (2001, pp. 383) discussion regarding objective and subjective existence and the tendency of an individual to place their own subjective experience before objective concurrence.

An individual may search for meaning in an event through a pre-existing but flexible framework of personal norms and preferences, via the narration process (Neimeyer, 2001). Such creation or construction of significance can be achieved through the use of language and non-verbal cues during the narration itself (Neimeyer, 2001, pp. 265). Thus, the onus is

placed upon the confidant (in this case the researcher) to track both the spoken comment and the 'emotional modulation' (Neimeyer, 2001, pp. 265) that accompanies it, in order to fully understand the loss and how the individual is making sense of that loss event.

Essentially, what the person says, how they say and it and in what context, is of vital importance to the researcher to facilitate comprehensive understanding of the topic in hand. This is especially relevant for projects using a qualitative methodological approach suggesting the data collection stage must capture actual and implied, as well as verbal and non-verbal information.

The act of sense making by the individual can be seen as a multi-faceted activity. It perhaps allows him/her to organise thoughts, feelings, actions and reactions following the loss event into a more manageable package. This gives structure and a perception of control over events by separating the 'story' as it is being related, into a plot comprising of a definable sequence (Harvey, 1996). It allows the individual the option of examining the major 'stressors and losses' (Harvey, 2001, pp. 235), in whatever depth of detail they are comfortable with.

This perhaps gives the individual a self created time frame, with clearly identifiable stages in which to mourn and indeed cope with the loss and perhaps preserve its meaning throughout this period of instability. As Ellis, 1998, states, 'An experience of loss shatters the meaningful world people have assembled for themselves. Often we have a strong desire to understand, manage, and recover by creating an account that makes sense of loss and puts the pieces back together' (Ellis, 1998, pp. 50 - 51).

In a paper by Coates and Fordham (2000) presented at the 'Geographic's of Home' conference, the authors explored the issue of whether an individual can replace memories and what disasters might reveal to researchers about the relationship between home and identity. What this paper highlighted was that when a disaster strikes the home, simply rebuilding or replacing the damaged sections is not enough. That a physical item, not only valued in itself, may also have embedded subjective constructs associated with it that add to its value and hence the stress when it is lost (Coates and Fordham, 2000). Significant loss – whether of cherished persons, places, projects, or possessions – presents a challenge to one's sense of narrative coherence as well as to the sense of identity for which they were an important source of validation (Neimeyer, 1998).

Coates and Fordham, 2000, suggest that this is more to do with the meanings that an individual ascribes to an item that has been lost. When discussing the links between identity and 'place' they state, 'The meanings given to a place may be so powerful that they become a central part of the identity of the people experiencing them...' (Coates and Fordham, 2000, pp. 1 of 8). Places here referring '...to the significance particular places have for people, where places are infused with meaning and feeling' (Coates and Fordham, 2000, pp. 1of 8).

'The loss of memorabilia and sentimental possessions are often the cause of great distress to many flood victims. The loss is seen to undermine people's individual sense of self identity and place identity. People develop a sense of self, based on the places in which

they live. The home is often conceived as an emotional sanctuary and haven from the outside world. Years spent creating the home in a personal style need to be re-created in weeks or months and the choice of new furniture and fittings is often based on a fear of future flooding rather than a preferred style. Some flood victims describe a sense of violation and invasion in the home, which was no longer a secure place to live.' (Tapsell, 1999, pp. 4).

Closely aligned to the topic of searching for meaning within loss, is that of symbolic meaning of the loss. As has been previously suggested, lost items may not hold any particular monetary value, but their loss is never the less felt deeply. This is because the individual invests symbolic or personal value upon an item and when the item is no longer there, although it may not cause any disruption to an individuals finance or daily routine, its loss is felt.

Coates and Fordham, 2000, explore briefly the link between symbolic meanings and memories, suggesting through referenced examples that meaning of an item may be closely aligned to the memory that the individual has invested in that item. 'Photographs provide an obvious link to the past...' (Coates and Fordham, 2000, pp. 5 of 8) showing that certain items act as a bridge between what was and what is, providing '...a tangible link between past, present and future, providing a sense of continuity' (Coates and Fordham, 2000, pp. 5 of 8).

After a disaster these photographs may be physically damaged or lost but so too are the memories entwined within them and the tangible link the item provided between life before disaster and life after. The link is severed and is irreplaceable. But as the authors suggest, following a flood disaster, '...flood victims are advised to throw everything contaminated by floodwater away. If they were advised to keep especially significant items and have them cleaned it might save much distress' (Coates and Fordham, 2000, pp. 5 of 8).

Following on from this concept of places 'infused with meaning' is the issue of loss sustained to the house. This is a particular example, which highlights the potential dual concept of loss this thesis aimed to address and yet another example of the interconnectedness of the two concepts, meaning and loss. The question here is 'When does a house become a home?' or perhaps more appropriate following disaster, 'When does a home become simply bricks and mortar?'

The key may lie in the personalisation one puts into the house, which relates to the overall effort, time, money and individualism spent on a house to make it a home that is unique to its occupants and as they want it (Coates and Fordham, 2000, pp. 6 of 8). After disaster, if this is destroyed or damaged in some way, the abode loses its special importance, something that cannot be restored by the replacement of lost items (Coates and Fordham, 2000).

The authors suggest, citing quotations from transcripts of interviews conducted, that '...a home is more than simply the physical building' but '...it is often assumed that once residents move back into their repaired houses that the problems are over' (Coates and Fordham, 2000, pp. 5 of 8). Official response works towards getting residents back into

their houses, the aftermath cleaned up and a level of 'normality' restored and usually this will '...concentrate on the physical aspects of the building, but for the residents less tangible aspects are at least as important' (Coates and Fordham, 2000, pp. 6 of 8).

Also closely related to the issue of meaning within the house/home example are the concepts of place attachment and identity. The concept of place attachment concerns the emotional, behavioural and cognitive embeddedness the individual has with their socio-physical environment (Altman and Low, 1992, pp. 279) and is based in part upon Bowlby's 1969 attachment theory. Coping in this context involves a process of dealing with the loss of the attachments and securing new ones (Altman and Low, 1992). The authors suggest that disruption to the house or home also affects the identity of the individual as homes tend to be personalised (via furnishings or style) and subtle bonds form which are only retrospectively realised as important (Altman and Low, 1992). The authors also suggest that attachment to a place can form slowly but can be destroyed in a relatively short period of time (Altman and Low, 1992).

This example of 'house and home' highlights an issue that this research hopes to examine in greater depth, that loss of a resource can potentially affect an individual twice. The physical loss of the item coupled with the subjective loss of memories, attachment, personalisation or meaning ascribed to it by the person may mean that there is a double impact to bear but in such a case, which part of the loss is harder to cope with? And does every loss potentially have two components, an objective and a subjective element?

1.5.4.1 Sense of Control

An individual's sense of mastery or control of a situation is linked with his or her construction of meaning of the loss event. Thompson, 1998, suggests that there are 'Five ways of restoring a sense that life is meaningful and that one has some control over desired outcomes following a major loss...changing to reachable goals, making positive reinterpretations, engaging in downward comparisons, accepting some outcomes, and focusing on areas of higher perceived control' (Thompson, 1998, pp. 24). All of these activities involve the individuals attempting to rebalance their life via adaptive activities, thus (hopefully) restoring some semblance of control over events.

However, an individual's sense of control may be blocked by two key elements – situational and personal factors (Thompson, 1998, pp. 24 - 25). The author suggests that seriousness, extent and type of loss are all situational factors, which can affect restoration of assumptions. But seriousness of the loss can be highly subjective and open to interpretation based on an individual's own perception of events and so its influence must be examined within such limitations.

The type of loss experienced may indeed have an effect on regaining meaning and control following the event, in that '...unexpected loss, misfortune perpetrated by trusted others, and loss in a situation where one had exerted control make coping particularly difficult' (Thompson, 1998, pp. 25). Although Thompson states, it must be recognised that severity and circumstances in which loss occurs will of course have an impact on the coping effectiveness and efficiency by an individual (Thompson, 1998, pp. 25). Such factors can

block individual adaptation to loss by undermining the individual's ability to see meaning within adverse situations and thus undermine their sense of control.

Tapsell, 1999, states that a loss of control can be generated by a loss of confidence in those in a position to assist victims. The author states, 'A further influencing factor can be described as a loss in the level of confidence in authorities and institutions perceived to be associated with providing flood protection and recovery support, and a fear that they will also fail to protect or warn against any future event. Explanations given for the cause of flooding as being 'natural' forces may not be believed by flood victims, exacerbating the loss of confidence in authorities to predict a flood or issue a warning. This leads to anxiety when storms or rain are forecast, worry about the possibility of future flooding, and associated changes in behaviour such as regular monitoring of river levels.' (Tapsell, 1999, pp. 4).

Thompson, 1998, discusses cognitive techniques, such as how one deals with emotionally painful issues, what opportunities are created to talk freely about the loss, positive reinterpretation and having flexibility of belief and views of the world (Thompson, 1998, pp. 25 – 29) as methods for regaining control. These ways of dealing with loss and trying to regain some sense of control, assume that the individual will want to work through the problem to try to help them. They '...involve a adopting a new way of seeing the situation...require the ability to change views and to try out some new perspectives...to let go of some goals and embrace others' (Thompson, 1998, pp. 25). This supports Hobfoll's (1989) suggestion that reappraisal or reassessment of resource loss is one manner in which to cope.

A sense of control and a feeling of security are also closely linked, especially with aspects of personal space or home, '...for many the home represents a place of safety and security. It is a space whose boundaries can be regulated and access can be controlled. Within these boundaries occupants have a private space.... Disasters break through these boundaries and destroy that sense of security' (Coates and Fordham, 2000, pp. 4 of 8). And this can be felt on both an individual and a community level, often when residents are temporarily displaced or re-housed due to damage to their homes. A more comprehensive list of references regarding the issues of place attachment, identity, sense of control and coping mechanisms within the individual or at community level, not covered within the confines of this thesis, can found in Coates and Fordham, 2000.

1.5.5 Conclusions on Previous Loss Research

Previous work highlighted the various reactions and emotions an individual might go through at any given time in response to loss. Unfortunately, the very nature of loss can be so complex that in order to study it more comprehensively it may be necessary to impose pre-defined boundaries, such as stages, to make the construct more manageable. But researchers must be careful not to allow these nominal boundaries to become more rigid and thus force research and personal experience, into inflexible boxes that do not allow for the dynamics of the individual to be explored properly.

Subjective loss has been examined by researchers in terms of psychological impact or appraisal process, not the nature of the actual loss itself. The links between types of loss,

subjective or objective and associated coping may need to be examined more closely in order to identify the path of association between them. This could help researchers better understand the nature of stress within an individual.

The concept of meaning, either by assessing the meaning of an item or condition prior to that loss, the subsequent reappraisal of the meaning of the item or condition after the loss or the way in which meaning is found through narration or story telling as a coping method is also highly relevant. Meaning appears to be strongly interconnected to perceptions of identity and sense of control following loss and forms a key component of the appraisal and reappraisal process.

Loss can be a vague and at times highly subjective concept. Identification of specific loss, the factors that lead to each being identified by the individual as a loss, the difference between objective and subjective loss and coping patterns, if any, associated with each specific types of loss would go some way towards examining the interlinked issues of stress and loss. Ultimately there may not be a specific pattern of loss to stress response to coping used but by examining the concept of whether loss may have both physical and subjective characteristics, just as stress and coping do, could help understand the nature of the individual experience in a more in-depth manner.

1.6 Coping

1.6.1 Introduction

In this section the extensive subject of coping will be examined but confined to assessment of literature directly relevant to the aims and objectives of the research. Definitions and classifications of coping will be reviewed before proceeding to an assessment of the three main categories of coping used in this research, problem-focused, emotion-focused and disengagement coping. Previous models and theories within the field will also be discussed.

1.6.2 Definitions and Classifications of Coping

'Coping can be described in terms of strategies, tactics, responses, cognitions, or behavior' (Schwarzer and Schwarzer, 1996, pp. 107). It includes 'internal events as well as overt actions' and can be noticed by either introspection or observation' (Schwarzer and Schwarzer, 1996, pp. 107). The point of coping is to resolve some unsatisfactory or stressful situation that has arisen for the individual. 'Indeed, stress implies a disturbed person-environment relationship that coping is meant to change' (Folkman and Lazarus, 1985, pp. 150).

Holahan, Moos and Schaefer, 1996, state that coping may be '...categorized according to their assumptions about the primary determinants of coping responses. *Dispositional* approaches assume that relatively stable person-based factors underlie the selection of coping behaviours. *Contextual* approaches assume that more transitory situation-based factors shape people's choices of coping responses' (1996, pp. 25, italics in original). Dispositional approaches usually involve measurement and assessment of coping by interviews and personality tests whereas contextual approaches are more concerned with

the individuals' appraisal of the stressful situation, perhaps via in-depth interviews, (Holahan, Moos and Schaefer, 1996).

Coping can be classified as vigilance and cognitive avoidance (Krohne, 1992, pp. 21). Here responses are either characterised by intake of information with a view to understanding and perhaps acting upon it, or actively turning away from cues (Krohne, 1992, pp. 21). These broad categories are further divided into problem-solving for vigilant or approach strategies and emotion-focused for avoidance strategies (Schwarzer and Schwarzer, 1996). Through either of these ways adaptation is sought whereby the individual attempts to adapt to a changed and threatening environment.

Lazarus and Folkman (1984) suggested two dimensions of coping; problem-focused and emotion-focused to discriminate between coping activities. The former is taken to be pro-active and 'action-centered in the sense that the troubled person-environment relationship is changed by instrumental actions' which may or may not be successful (Schwarzer and Schwarzer, 1996, pp. 110). The latter is a more cognitive based approach whereby coping undertaken may not 'directly change the actual situation, but rather help to assign a new meaning to it' (Schwarzer and Schwarzer, 1996, pp. 110).

Problem-focused forms of coping '...are often directed at defining the problem, generating alternative solutions, weighting the alternatives in terms of their costs and benefits, choosing among them, and acting' (Lazarus and Folkman, 1984, pp. 152). Problem-focused coping is not just problem-solving though as the authors continue, '...problem-solving implies an objective, analytic process that is focused primarily on the environment; *problem-focused coping* also includes strategies that are directed inward' (Lazarus and Folkman, 1984, pp. 152, italics in original).

Emotion-focused coping is a little more complicated to define. 'One large group (of emotion-focused forms of coping) consists of cognitive processes directed at lessening the emotional distress and includes strategies such as avoidance, minimization, distancing, selective attention, positive comparisons, and wresting positive value from negative events' (Lazarus and Folkman, 1984, pp. 150). These are more defensive strategies but some can be positively aggressive or deliberately used to increase emotional distress such as an athlete 'psyching' himself up for competition (Lazarus and Folkman, 1984, pp. 150). Some of these cognitive forms of coping lead to reappraisal of the situation, such as 'It's not so bad really' or 'I really don't care anymore'. However, emotion-focused coping is not synonymous with reappraisal according to Lazarus and Folkman, 1984.

But these two categories did not totally encompass nor perhaps explain the range of coping options available to individuals. Freedy, Shaw, Jarrell and Masters, 1992, investigated the psychological impact of natural disasters using the COR model and found that three factors emerged for the coping behaviour mediator variable under examination. Freedy, Shaw, Jarrell and Masters, 1992, suggested the factors of problem focused coping – comprising of 'planning, active coping, suppression of competing activities, and acceptance' (Freedy, Shaw, Jarrell and Masters, 1992, pp. 448), emotion focused coping – comprising of – 'seeking emotional support, religion, and humor' (Freedy, Shaw, Jarrell and Masters, 1992, pp. 448) and a new category, that of disengagement coping. This latter factor comprises of

'behavioral disengagement, denial, alcohol/drug use, and mental disengagement' (Freedy, Shaw, Jarrell and Masters, 1992, pp. 448).

This was based upon work by Carver, Scheier and Weintraub (1989) in their COPE inventory which had previously highlighted the styles of problem focused coping, emotion focused coping and self-limiting strategies. A series of 60 items with 15 scales ranging from positive reinterpretation and growth, to denial, humour and acceptance were developed and later, a brief version of the questionnaire with 28 items and 14 scales as an amendment for use within other contexts (Carver, Scheier and Weintraub, 1989 and Carver, 1997).

The first five scales are regarded as sub-dimensions of problem-focused coping and the second five as emotion-focused coping. Two other experimental scales were added those of Substance Abuse and Humour (Carver et al, 1989). The final ones are self-limiting strategies and it is these items that Freedy et al (1992) redefined as disengagement coping. These are specified fully in Appendix E.

This research was based upon Lazarus and Folkman's 1984 stress appraisal theory and the Ways of Coping (WOC) questionnaire developed by the authors in 1980. Carver, Scheier and Weintraub, 1989, argued that the WOC questionnaire was useful but simplistic in its problem focused versus emotion focused distinction, citing much research supporting their assertion that there were more than two factors of response to stressful situations (Carver et al., 1989). Furthermore that there was ambiguity in some of the items as to what they purported to measure (Carver et al., 1989, pp. 268).

Carver, Scheier and Weintraub (1989) proposed their COPE inventory to measure what people do usually in stressful situations either regarding a specific situation or in general. However, as with all questionnaires there are limited items that a respondent can endorse and they may not satisfactorily cover the breadth and depth of experience of those affected in any given situation.

1.6.3 Coping with Disaster

Brende, 1998, suggests that survivors of floods go through five distinct stages when confronted with a flood in the post-disaster phases. This echoes research into phases of disaster as described previously. The 'Immediate Coping: Alarm and Outcry' phase describes how affected persons cope with 'impending disasters' (Brende, 1998, pp. 114). Here individuals 'become confused and over-whelmed by fear. However, most survivors respond to the danger with little or no expectation of personal risk, often with heroic efforts, clear thinking, and physical endurance' (Brende, 1998, pp. 114). The author also suggests that some will 'refuse to believe the seriousness of the danger' (Brende, 1998, pp. 114).

The second stage is that of 'Early Adaptation: The Disbelief and Denial Response' (Brende, 1998, pp. 114) in which 'incredulity' can assist in coping with an extra-ordinary event. However, he warns that 'those who refuse to believe they will ever be overcome by life threatening circumstances can be at risk' (Brende, 1998, pp. 114) Citing a specific case in which a man was in denial about the potential affect the flood could have on his dream

home, the author suggests that 'the enormity of their loss was attenuated only by the knowledge that they weren't alone' (Brende, 1998, pp. 114). He further suggests that the reason for this may be that most individuals finding themselves 'in the middle of disasters are somewhat 'numb' to the reality of the calamity' (Brende, 1998, pp. 114).

Stages three, four and five involve further adaptation to the 'intrusion' and many finding themselves undertaking a variety of activities from cleaning up to making insurance claims (Brende, 1998, pp. 115). Then anger and physical symptoms may manifest themselves during the three months post-event in which 'there is a marked decrease in tolerance, an increase in complaining, a loss of humor, and mistrust of others' (Brende, 1998, pp. 116). Brende, 1998, summarises previous research that physical symptoms can be exhibited, explaining that 'these symptoms may also be associated with secondary victimization befalling those who are exploited by shysters, neglected by thoughtless people, and mistreated by dehumanizing agencies' (Brende, 1998. pp. 116). Finally the 'Resolution or Symptom Development' phase may be reached in which PTSD can be present if issues and difficulties are not resolved.

Ultimately the idea of phases in disaster and coping stages here is presented within the confines of improvement of post-trauma psychological assistance or counselling. However, the activities and content of each stage are important regardless of whether the definition of 'stage' is apt within and appear to be common reactions in affected persons in response to flood or natural disaster.

1.6.4 Appropriate Methodologies

Coping theory was largely based on the work of Lazarus in the 1960s, which explored the concept of 'coping by a person situated in a particular stressful encounter or stressful social condition' (Folkman and Tedlie Moskowitz, 2000, pp. 647). The authors cite key developments in the field with the focus of coping research changing, relating to personality, resources, development over the lifespan, functions of coping or influences on the coping process perspectives (Folkman and Tedlie Moskowitz, 2000, pp. 647). Much coping research to this point, used questionnaires to measure research objectives and investigate mainly negative outcomes.

Folkman and Moskowitz, (2000) highlighted the need of contemporary coping research to investigate the issue of positive outcomes and emotions in coping, reinforcing the notion that much research has still been examining coping from the same set of assumptions. Researchers may have been hampered in moving forward by their own rigid definitions and entrenched perspectives on the issue. Indeed, Somerfield and McCrae, 2000 state that although coping is '...arguably the most widely studied topic in all of contemporary psychology...Two decades of concentrated research have yielded relatively little of either clinical or theoretical value' (Somerfield and McCrae, 2000, pp. 620).

This may in part, have something to do with the actual methodologies used by researchers and their inappropriateness or poor application to the task in hand. Previously data on the subject were collated via use of questionnaires, such as the Ways of Coping questionnaire developed by Lazarus and Folkman in the 1980's. This examined the dual concepts of problem and emotion focused coping within everyday living situations. However

weaknesses of this questionnaire have been suggested ranging from internal consistency not being satisfactory, to low consideration given to cross-scale linkages and relationships (Schwarzer and Schwarzer, 1996, pp. 114).

Costa, Somerfield and McCrae, 1996, argue that the '...widespread reliance on "general-duty" coping questionnaires to the exclusion of other approaches has arguably delayed progress in applied coping research' (Costa, Somerfield and McCrae, 1996, pp. 56). Coyne and Racioppo, 2000, are scathing in their examination of the field saying that 'There is a profound crisis in the existing descriptive research using standardized checklists, stemming from its chronic failure to produce credible, substantive findings that cannot be dismissed as truisms, trivia, or the product of a confounding of stress, coping, and distress.' In short, questionnaire checklists have '...outlived (their) utility' (Coyne and Racioppo, 2000, pp. 656).

But Costa, Somerfield and McCrae (1996) are slightly less aggressive in their argument, stating that the field will not advance until psychologists realise that they cannot '...expect to understand all ways of coping by using a single methodology' (Costa, Somerfield and McCrae, 1996, pp. 44 - 45). This suggests that there is a need for interdisciplinary techniques of research with perhaps a little more emphasis on other methodologies than has been seen in the past.

1.6.5 The Concept of Normality in Coping

In a more traditional definition, '...coping is regarded as a psychologically "normal" process found in psychiatrically healthy individuals...It is also implicit in the assumption that coping is a discrete response to an environmental stimulus, a more or less rational response to an objective problem. Coping, then, has been regarded as a special category of adaptation elicited in normal individuals by unusually taxing circumstances' (Costa, Somerfield and McCrae, 1996, pp. 45). This suggests that there may be a variety of coping responses and that some may be considered 'abnormal' or more detrimental than others. Here it is the person themselves who is regarded as imbalanced rather than the person-environment relationship in the previous definition.

Wortman and Silver (1987), suggested seven broad assumptions present in the literature at the time regarding the issue of coping with irrevocable loss; that distress or depression is inevitable, that positive emotions are implicitly assumed to be absent, that distress is actually necessary and failure to experience it is indicative of pathology, that working through loss is important, that is it is necessary to break down attachments to the lost object, recovery is expected to occur after a given time has elapsed and a state of resolution must be achieved at some point in the future (Wortman and Silver, 1987, pp. 195 – 214).

They suggest that previous research intimates that a '...failure to grieve will result in subsequent health problems' (Wortman and Silver, 1987, pp. 202) and refute this belief stating that, '...there is little empirical support for the widely held assumption that a period of depression is necessary for successful resolution of grief' (Wortman and Silver, 1987, pp. 204). This may be in some way be linked to the presence of literature proposing certain stages of grief that must be worked through in a pre-determined order, to allow successful resolution of the situation.

Lazarus, 1993, suggests that ego-psychologists once regarded denial (traditionally accepted as a less than satisfactory coping approach) as pathogenic, whereas '...it may be useful for adaptation under certain definable circumstances...' (Lazarus, 1993, pp. 236). Lazarus 1993, in his review of coping theory and research states that '...the hierarchical view of coping, with its trait or style emphasis, was abandoned in favour of a contrasting approach, which treated coping as a process. From a process perspective, coping changes over time and in accordance with the situational contexts in which it occurs' (Lazarus, 1993, pp. 235). Therefore, no response is necessarily 'abnormal' it is merely reactionary to the situation and circumstances as they unfold.

Within the transactional stress model it is the perceived failure to cope, by whatever means, that leads to stress. This model suggests that '...coping can be considered a transactional process between individuals and their environment, involving appraisals such as whether the situation is a threat, a challenge, or a loss, and appraisals of what can be done. Once a person decides what can be done, coping strategies are implemented' (Lazarus and Folkman, 1984). 'Stress and emotion cannot be properly understood without considering the *coping process*, which is an integral feature of an emotion. Most stress and emotion theorists, including Hobfoll, give the coping process short shift' (Lazarus, 2001, pp. 388).

Park, 1998, states that 'Many versions of this basic transactional model have been proposed and various components or subsystems of these models have been the subject of hundreds of studies' (Park, 1998, pp. 269). They all describe the same basic concept – '...the processes by which some people manage to maintain or restore their emotional equilibrium and others succumb to physical or psychological disorder' (Park, 1998, pp. 269). Has there been an over-reliance on establishing what form of coping might work better than others to return a person to 'normality'?

Some coping methods may be more 'successful' or provide the individual with a better grounding for tackling the situation they face but it is highly unlikely that there is a 'Holy Grail' of coping. Continuing to search for a list of actions and activities which when undertaken in either a pre-determined manner or on an 'as and when required' basis will provide a route to normality is perhaps a fruitless exercise. There may simply be no way of knowing or pinpointing why one person seemingly withstands '...transitions and tragedies better than others...' (Miller and Omarzu, 1998, pp. 6 - 7).

In conclusion, the field of coping is vast and contains many measures and perspectives however not all may be suited to the discipline of disaster research. The three distinctions of problem focused, emotion focused and disengagement coping strategies are the most well known and used. These separate coping methods were usually examined via use of a questionnaire, which whilst providing useful guidance to the field, has perhaps been in retrospect, limiting.

The concept of normality is common to both loss and coping research and suggests that there still is an expectation that an individual will cope in a certain, acceptable manner. In order to better assist affected persons post disaster, it is necessary to understand what they lost, how it affected them and what they are doing to cope with that loss. By recognising what reactions might occur and the underlying reasons why they are occurring, whether

they are ultimately deemed normal or not, can be of great benefit to the field of disaster management. Although it would be helpful to have a coping template to super-impose onto each person in every stressful situation, the reality is that it simply does not exist.

1.7 Aims and Objectives

This section discusses how the aims and objectives of this research were developed with reference to the perceived gaps in knowledge and the limitations of existing literature.

It was hoped that the examination of a UK flood disaster loss using both the COR model by Hobfoll and the Cognitive-Appraisal theory by Lazarus and Folkman, currently viewed by their authors as diametrically opposed to one another, would help establish if one is more beneficial than the other in understanding resource loss impact from a flood. Hobfoll, in personal correspondence with the researcher (in 2001) confirmed that he did not know of any research conducted previously or currently using the COR model in a UK flood disaster context. Literature searches looking for any research using both theories in conjunction with each other, or individually in a UK flood context were also negative.

Schwarzer, 2001, states that resources have been an important element in both authors' work on the subject of stress and coping but that the difference lies '...mainly in the status of *objective and subjective resources*' (Schwarzer, 2001, pp. 403, italics in original). He continues by illustrating how Lazarus sees objective resources as 'antecedents, which may have an indirect effect, whereas subjective resources (resource appraisals) represent the direct precursors of the stress process' (Schwarzer, 2001, pp. 403). Hobfoll on the other hand considers resources as both objective and subjective components of the stress process but '...lends more weight to the former' (Schwarzer, 2001, pp. 403).

Lazarus states that Hobfoll regards the stress process in objective terms whereas Lazarus himself regards in more subjective ones, (Lazarus, 2001, pp. 381). It can be observed that actually both authors are examining a single issue but from the opposite sides of the same coin, as Schwarzer states, it is, '...the difference between the two theories, in this respect, is a matter of degree, not a matter of principle' (Schwarzer, 2001, pp. 403). However, it is not clear if either author at any stage of their work has viewed resources in terms of containing dual elements. It seems that both authors' categorise resources as either objective or subjective *only* rather than examining if a single resource may contain *both* objective and subjective elements, although both do acknowledge the presence of the other form of resource separately.

Previous disaster-oriented research in the field using the COR model or the cognitive-appraisal theory as a basis does not appear to have examined this possible dual nature of a single resource nor investigated flood disaster within a UK context. The use of the COR model in disaster research has preferred instead to concentrate on resource loss as a critical ingredient of the stress process (resource loss as a predictor of coping or the negative impact of disaster by Freedy, Shaw, Jarrell and Masters, 1992 and Smith, 1996) as a predictor of PTSD, as a predictor of general psychological distress, affected sense of coherence of an event and also the long and short term affects of disaster (Schwarzer, 2001, pp. 346 – 347). These are without reference to any potential dual nature of resources, with

authors preferring instead to concentrate upon validation of the many aspects of the COR model within various disaster contexts, in the United States.

Also research using the cognitive-appraisal theory does not address the concept of duality of resources or the issue of UK based flood disasters. Previous work cited in Chapter One concerns organisational disaster (Orlitzky, 1998 and 2000) or factors influencing susceptibility to emotional impact after disaster only (Gibbs, 1989), for example. Of those who acknowledge both the COR model and cognitive-appraisal theory in their research of disasters (Britton, Moran and Correy's 1994, Kaiser, Sattler, Bellack and Dersin's 1996 or Smith, 1996), none compares and contrasts the two, examines the issue of duality of resources or is concerned with a UK based flood event.

It was the initial aim of the research to examine firstly which author's theory, Hobfoll's COR model or Lazarus and Folkman's cognitive-appraisal theory was more appropriate to use in understanding flood experience from the flood-affected individuals' point of view? In addition, to determine whether both theory's authors were actually examining the issue of loss and coping within the stress process, from the opposite side of the same coin as Schwarzer (2001) contended and whether a greater understanding could be gained by combining these theories rather than keeping them separated.

Hobfoll, 2001 also states that individual appraisal is only one method of assessing resource loss and that '...most resources are objectively determined or observable' (Hobfoll, 2001, pp. 342). He continues by stating that 'Resource loss for one individual would in most cases be perceived as loss by others in similar circumstances...' (Hobfoll, 2001, pp. 342).

The indication of positive support and confirmation for each of these concepts as well as the resources categories, was sought to justify the use of the COR model as a framework for analysis of the data, although it was uncertain as to whether data would support the final concept stated, that of most resources being objectively determinable or observable (Hobfoll, 2001, pp. 342). This research aimed to discover whether it was true that most resource loss would be objectively concurred by others or that some losses were subjectively experienced and therefore not so readily observable.

The second aim of this research was to learn whether a single resource could in fact contain both an objective and a subjective component, which could be lost as a result of the stressful experience, in this case a flood. This would help determine if it is more appropriate to view resources as being distinctly *either* objective or subjective or as containing *both* objective and subjective components, within the stressful episode. This builds upon previous work on the subjective of objective and subjective resources within the stress process but expands it to examine the possible dual nature of a single resource.

Building upon this second aim two further questions will be examined. If data collated does suggest that resources may have both objective and subjective components, which element of the loss (the objective or subjective element) has a greater impact on the individual?

If the dual nature of a single resource exists, then how does an individual cope with loss of the objective element compared to loss of the subjective element and are there differences

in coping method employed to deal with the loss? This may help clarify the types of coping approaches employed by residents flood affected in the UK, which could have use and value to those responding to flood disasters in the future.

To clarify therefore, the overall aim of the research was:
To understand from participants' interviewed what role resources and appraisal had in their experience of loss and coping due to being flood affected.

The objectives of the research were:

1. To establish which authors' work was more appropriate towards understanding an individual's experience of flooding and any subsequent loss, Hobfoll's COR Model (1989, 1998) or Lazarus and Folkman's Cognitive-Appraisal Theory (1984).
2. To identify whether it was more useful to combine both Hobfoll's COR Model (1989, 1998) and Lazarus and Folkman's Cognitive-Appraisal Theory (1984) to gain a greater understanding of an individual's experience of flooding and any subsequent loss.
3. To understand if a single resource can contain both an objective and a subjective component, which can be lost as a result of a stressful experience, in this case following a flood disaster?
4. If this last aim was supported, then two further objectives were to be investigated;
   4.1 If a single resource contains dual components, which element of the loss (the objective or the subjective one) has the greater impact upon the individual?
   4.2 If a single resource contains dual components, how does the individual cope with loss of the objective element compared to loss of the subjective element? Furthermore, are there any differences in the approach employed by participants?

2.0 Methodology

2.1 Introduction

In this section the research methodology used is presented, with an overview of flood events in the UK from 1997 – 2000. The two chosen flood events and the reasons for their selection are discussed. Qualitative methodological issues of validity and reliability are explored and this chapter ends with a brief discussion of the ethical considerations of this research.

2.2 Methodology of Research

This section provides an overview of the methodology and project research plan as it was originally developed. Amendments and changes implemented due to unfolding circumstances are also detailed here to provide a chronology of research progress. In-depth discussion relating to the case study work, focus groups, questionnaire and in-depth interviews are dealt with in the following chapters and are only mentioned here in context of the timeframes and research methodology described. To investigate the aims and objectives outlined, the following research design was adopted:

The original methodology was to incorporate both qualitative and quantitative aspects in the research, by conducting in-depth interviews with a view to developing items for use in a questionnaire survey. The researcher has thorough knowledge of disasters from previous study undertaken but did not have a detailed understanding of the psychological affect and nature of loss that a flood disaster could have on individuals. Therefore, it was appropriate to conduct a case study interview to identify themes and issues, supported by themes generated from a literature review, for those participants affected by flooding.

North Yorkshire was identified as being severely flood-affected and fulfilled the selection criteria discussed further in this chapter. Initial contact was made telephoning local authorities, media and community figures to identify individuals within the community who would be most suitable to talk to. This contact was approximately four weeks following the autumn 2000 floods and the case study interview was conducted in January 2001. This was an initial unstructured interview with three people recently affected by floods in order to generate more lines of inquiry and avenues for investigation.

It was felt using this approach would ensure less bias on the part of the researcher as the issues would be generated by the participants based on their expertise of the situation they were currently experiencing. This would also ensure, as far as possible, that subsequent research questions were based on participants' knowledge and experience rather than initiated by the researcher.

The original research design of in-depth interviews used to create items for a questionnaire would have allowed for development of items applicable to those affected and would be a relatively quick method of data collection across a potentially large number of respondents at the survey stage. However, two events changed this methodology considerably. The first

was the realisation that posting questionnaires through letterboxes in the post-flood phase of the disaster would be a fruitless exercise. Many flood-affected people simply did not live in their homes at that time (October 2000 – March 2001), nor would they have the inclination to fill in forms when they had more pressing concerns (as was indicated to the researcher following the case study work interview off-tape).

Flood-affected persons tend to be dislocated from their property for a considerable amount of time, sometimes up to a year and this problem would not be resolved quickly. Secondly, (after the first in-depth interview was transcribed), it was found that much of the discussion was complex and detailed and a 'tick in the box' survey would not serve the interests of the participants nor the researcher well in this respect.

It became apparent following analysis of the case study interview using the COR model that several topics had multiple levels or facets that also required exploration and confirmation before the main body of the data collection could be conducted. These related to the scope and relevancy of the main theoretical model to be used (Hobfoll's Conservation of Resources Model) within a UK flood disaster context. Questions arose as to whether the model was appropriate to use for analysis of data and if it actually covered the experiences of those affected adequately and if the issues and topics raised by participants in the case study interview were common to flood affected people generally or just interview-specific.

A second level of analysis was introduced to examine the use of the cognitive-appraisal theory by Lazarus and Folkman (1984) and confirmed the limitation of Hobfoll's COR model. It appeared that the model did not cover the more subjective or intangible aspects of the flood experience as discussed by participants, nor offer a way to analyse this comprehensively. The second theory by Lazarus and Folkman was concerned with the appraisal process and it was examined to assess whether it might offer a solution to the issue of how to best examine the concepts of intangible loss and emotional reaction to the situation. Therefore, it was appropriate to examine these issues generated at the case study stage with more participants to investigate these concerns. Findings from the case study interview were used as the basis for a topic guide for the next stage, the focus group interviews.

It was decided that a qualitative methodological approach would be useful to examine the issues arising from flood disaster as the cognitive appraisal model was concerned with subjective, perception based aspects of experience. These issues would not be best served using a questionnaire as quantitative questioning would not examine the issue of how it felt to go through such an event and why certain losses, not easily identifiable to the outsider, were indeed a loss.

Interviews at this stage were conducted in a semi-structured manner ensuring that certain themes and relevant issues were covered in conjunction with topics arising from literature reviewing at the same time. This was to test previous findings and certain themes generated by the literature review. (For a copy of the topic guide used, detailing the themes and issues examined in the focus groups interviews see Appendix B). Three focus groups were formed, one all female, one all male and one mixed gender comprising four persons per

group. Each group's size was limited to four persons so that they were small enough to be conducive to discussion of sensitive issues but large enough to allow comprehensive conversation when required. Any larger a group and it was felt the dynamics would interfere with the flow of the interview. Any smaller and it would not fulfil the requirements generated from the previous stage – that of investigating issues with a larger number of participants.

The groups were separated into single sex and one mixed gender group to allow for any disparity in opinion and discussion due to male or female perspective. This was useful as the female participants tended to discuss the emotional impact and community implications from the flood whereas the male group tended to discuss practical clean-up operations and financial impact. The women appeared more relaxed when discussing sensitive, personal issues whereas the male group only touched very briefly on personal matters.

Due to circumstances beyond the researcher's control the mixed gender group had to be cancelled. This was because members of the mixed group were concerned with the immediate post-flood situation and could not attend the original interview date previously agreed or any alternative dates. Focus groups were comprised of residents who were recently affected in North Yorkshire and interviews were conducted in late January and February 2001.

The focus groups confirmed that further investigation was needed to determine what were the types of intangible issues or subjective losses that participants had experienced and why these were so important to them. A follow-up letter with a series of open-ended questions asking for in-depth answers to the subjective issues raised was sent to all participants of the focus groups.

The focus group work in Yorkshire provided valuable immediate post-flood reactions, opinions and response. The researcher was able to refine relevant lines of enquiry, understand issues that may potentially cause distress to future participants and have a clearer understanding of the post-flood situation as it was unfolding. Asking questions that illustrated understanding of the types of issues residents might typically be facing facilitated a good rapport with participants in Yorkshire and it was felt this would be useful in the second location.

Participants felt the researcher 'understood' the situation and although she was asking questions about a potentially upsetting event, she was not perceived in any way to be prying or confrontational. This was especially true post focus groups when the all female group, off tape, thanked the researcher for her time, for being sympathetic and understanding of the issues they currently faced and for just listening to their experiences.

Exploration into other potential research locations began and following a conference presentation in June 2001, Northamptonshire County Council approached the researcher. Selection criteria were applied to this new location and it was found to be satisfactory as a secondary location in which to continue the research. Although the key flood event (Easter 1998) was several years previously, certain similarities remained (sheer speed and volume of water, large numbers affected, residents groups had been established post flood and the

amount of devastation caused) allowing the research to continue as the event met the selection criteria.

Due to the change in location, it was appropriate then to confirm that the key themes and issues identified in North Yorkshire following the Autumn 2000 event could be generalised to other locations, namely Northamptonshire after the Easter 1998 event. Also this fulfilled a secondary objective, to maintain rigour within the data and the project as a whole by addressing the issue of generalisation at this early stage.

Investigation began examining flood events in the region and how resident's experiences might be interwoven alongside the existing data collected. It was felt at this stage a quicker form of data collection than more case studies or focus groups interviews was needed. It was decided that a short questionnaire might be most suitable to confirm existing themes and issues and it would also fulfil several other aims.

A list of areas and some addresses potentially flood affected had been obtained from the county council but its accuracy had not been established. Indication was given to the researcher that some of the areas or addresses may not be correct as the information had been gathered in an emergency situation (during the 1998 Easter flood) and was perhaps not as comprehensive as it might have been.

A questionnaire designed to assess the sampling frame, was mailed to a sample of 250 residents in September 2001 was designed to investigate what types of physical and intangible losses had been experienced as well as demographic information. This was to be used to develop a more comprehensive questionnaire, which was to be distributed to flood affected areas identified by Northamptonshire County Council.

The questionnaire was well received and the aims were achieved. The address list did indeed have discrepancies as some questionnaires returned stated that the residents had never been flood affected at this property. Of those who returned the questionnaire, many identified intangible losses they had experienced and confirmed similar physical losses to those identified by residents in North Yorkshire.

At this stage examination of the intangible losses listed by respondents indicated that a further questionnaire might not be suitable to examine these subjective issues and that of individual experience within a flood situation. It became apparent that a qualitative approach, via in-depth interviews, was highly suitable to investigate the more subjective aspects of the research.

Although four years had passed since the Easter 1998 floods in Northamptonshire and there was concern that many people had either left the area or may not be able to recall the situation accurately, this did not appear to pose a problem. In an interview situation any queries were dealt with immediately and in a standardised manner with each participant. Also as the interview was dealing with sensitive issues, any non-verbal cues or indications of distress could be reacted to immediately so as to ensure ethical considerations were adhered to. Six interviews were conducted in November 2001 with respondents to the questionnaire and were analysed and reviewed in spring 2002.

In June 2002 a letter was sent to a second sample from the list supplied by Northamptonshire council requesting their participation in the research. Of those who agreed to participate many who had been affected by floods, regarded it as such a major event in their lives that they could recall it clearly possibly due either to constant refreshing of the memory by talking amongst friends or with authorities, or simply because it was such an abnormal event.

There was concern that those flood affected on several occasions may 'mix up' their stories and relate their experiences from many events rather than the one the researcher was most concerned with. If this happened the discussion would be recorded, time would be allowed for the participant to explore the issue they felt was important and then the researcher would gently steer the conversation back towards the relevant event.

In July and August 2002 eighteen interviews were conducted with a total of 30 people. Other respondents were not able to be interviewed due to circumstances ranging from the researcher being unable to contact the individual, cancelled appointments, participants not at home when the researcher called and the discovery that some potential participants had not actually been flood affected.

This last issue was most surprising as it did not occur to the researcher that after asking for participants who had specifically been asked to reply only if they had been flood affected, she would receive offers of participation from non-flooded residents. The concept that some individuals simply wanted 'to help' was not considered and did mean that the researcher was travelling to villages some distance from her home only to find out a few minutes into an interview that the individual would not be able to participate. This did ensure that careful vetting of participants occurred from that point onwards with pre-interview telephone calls made to confirm that they had been directly flood affected before the interview occurred.

2.3 UK Flood Events – A General Overview 1997 – 2000

Since 1997 there have been numerous flooding incidents in the UK. An overview of events from 1997 – 2000 will highlight the nature and intensity of the key floods that occurred during these years, which will place the two events chosen for inclusion in the research in context.

2.3.1 Flood Events in 1997

In July Moray in Scotland experienced severe flooding which caused 1,200 people to be evacuated from their homes and that '...major communication routes and businesses were disrupted' (Fordham, 1997, pp. 4). In December 1997 the River Severn burst its banks and properties in Upton on Severn, Tewksbury and Kempsey were flooded. Agricultural land resembled swampland after the river finally rose over flood defences for three days.[1]

2.3.2 Flood Events in 1998

April 1998, also known as the Easter floods, were possibly the worst that year as across England and Wales roads were made impassable, people drowned, thousands of properties

[1] BBC Weather Centre Online, November 2002, www.bbc.co.uk/weather/features/flooding_past.shtml

were flooded and emergency services had to rescue residents trapped on their roofs. It was estimated that over '4,200 properties were affected in England and Wales...' (House of Commons Select Committee on Agriculture, Sixth Report, 1997 – 1998, Paragraph 108). This was a figure that the Ministry of Agriculture, Food and Fisheries (MAFF) concurred with. In a press release they stated '...exceptional heavy rainfall was the worst since 1947 with over four thousand premises affected' (MAFF, News Release 204/98, 19th May 1998).

The Environment Agency in its published response to the Independent Report on the Easter 1998 floods stated that it would be taking special consideration of certain areas hardest hit by the floods. These included Northamptonshire, Bedfordshire, Warwickshire Leicestershire, Worcester, Banbury and Kidlington (Environment Agency Action Plan November 1998, pp. 10 – 13).

Record river levels were recorded across much of Oxon, Banbury and Kidlington. Northamptonshire and the surrounding areas were subjected to the worst floods for 100 years and many were forced to leave their homes for up to a year. (BBC Weather Centre Online, November 2002, www.bbc.co.uk/weather/features/flooding_past.shtml). 'In Northamptonshire alone, over 2,000 properties were flooded, 2 people died and 150 people treated in hospital for hypothermia and injuries sustained through flooding.' (House of Commons Select Committee on Agriculture, Sixth Report, 1997 – 1998, Paragraph 108). This event was deemed so severe and important that a recently established inquiry into existing flood and coastal defence policies by the House of Commons was expanded to include coverage and evidence from the Easter floods (House of Commons Select Committee on Agriculture, Sixth Report, 1997 – 1998, Paragraph 107).

The River Severn burst its banks and many areas in the Severn Valley remained under water for almost two weeks after 250mm of rain fell in 7 days causing flooding in 400 properties and the deaths of two canoeists[2]. Mid and East Devon and the Sussex coast were also affected and approximately 200 flood warnings in the Devon area alone were issued and the tail end of a hurricane hit the south coast areas of Shoreham, Pevensey and Selsey[3].

2.3.3 Flood Events in 1999

In January Kendal in Cumbria was affected by flash floods resulting in 50 properties being affected and the south coast again experienced a number of severe storms, which culminated with a tornado[4]. In March there was flooding in North Yorkshire, in Malton, Norton-on-Derwent and Pickering amongst others when heavy rainfall combined with snow melt from the North Yorkshire moors and resulted in damage to properties both business and private[5].

In August there was flooding in the West Midlands and Lancashire with river flooding affecting almost 100 properties[6]. In September Warwickshire was affected by freak storms

[2] BBC Weather Centre Online, November 2002, www.bbc.co.uk/weather/features/flooding_past.shtml
[3] As Footnote 2
[4] As Footnote 2
[5] March 12th, 1999, www.thisisyork.co.uk/york/archive/1999/03/12/comment1VQ.html
[6] BBC Weather Centre Online, November 2002, www.bbc.co.uk/weather/features/flooding_past.shtml

and the Rivers Tame, Cole and Blythe flooded parts of Birmingham and in October the south coast was affected by high tides and winds[7].

2.3.4 Flood Events in 2000

In May there was flooding on the North Kent coast, Sussex – as the River Uck broke its banks – and in Essex, an area which experienced road closures and left motorists stranded[8]. Yorkshire was flooded in June with over 700 homes affected in towns along the Calder Valley and the River Ouse at York flooded 4m above normal height[9]. Hundreds were evacuated in Durham when the River Gaunless flooded homes and business properties also in June of that year[10].

October and November was the wettest Autumn for 270 years and it is estimated that 10,000 properties were flooded at over 700 locations across the UK, 11,000 families were forced to evacuated their homes, 2.5 millions sandbags were deployed to try and protect families in 37,000 homes from encroaching water, 280,000 properties were successfully protected by flood defences which retained rising flood waters and the River Ouse was at its highest recorded level since 1625[11]. The period between October 31st and November 16th 2000 was the peak period for rainfall and severe damage resulting from two separate events (RMS, November, 2003, pp. 3).

In October the Meteorological Office issued the monthly assessment figures for weather in the UK for that month. They concluded that October 2000 had '...been the wettest October since 1903' (www.met-office.gov.uk/ukclimate/2000/october.html). Three separate depressions passed over the UK during October and November bringing with them exceptional rainfall for the time of year (RMS, 2003, pp. 4). Rainfall on October 29th – 30th was also heavy and fell upon ground 'already saturated by two to three times average monthly rainfall' (RMS, November, 2003, pp. 4).

Sussex and the Isle of Wight suffered torrential rain and 80 mph winds on Christmas Eve leading to the biggest mass public warning in the region since the Blitz and evacuation of homes[12]. Areas such as Kent and Sussex had experienced once in thirty-year floods twice in one month[13].

On November 6th 'The River Uck at Uckfield in Sussex burst its banks, flooding the town for the second time in three weeks'[14]. In the northeast there were eighteen severe flood warnings in place across the UK, eleven in the Midlands and ten in the southeast on the 8th November (www.guardianunlimited.co.uk/Print/0,3858,4087804,00.html).

---

[7] As Footnote 6
[8] As Footnote 6
[9] As Footnote 6
[10] As Footnote 6
[11] BBC Weather Centre Online – November 2002, www.bbc.co.uk/weather/features/flood_facts.shtml
[12] BBC Weather Centre Online, November 2002, www.bbc.co.uk/weather/features/flooding_past.shtml
[13] 30th October, 2000, www.guardianunlimited.co.uk/weather/Story/0,2763,390127,00.html
[14] 6th November 2000, www.guardianunlimited.co.uk/Print/0,3858,4086785,00.html

2.4 Selection Criteria for Research Locations

Originally the research was to be conducted in one county only. A location was chosen which had very recently experienced severe flooding and fulfilled the selection criteria. However, due to reasons outlined further in this chapter a second location had to be sourced to allow the research to continue. Therefore, the original and secondary locations had to be matched as closely as possible on the criteria used to select the original area. In the following section the criteria used to select both locations will be discussed. The criteria which were used for the selection of the flood events used in this research were; nature of event, recentness of event, willingness to participate, access to population and logistical and practical constraints.

2.4.1 Nature of Event

The criteria relating to the nature of the event included; severity, duration, intensity, damage caused, populations affected and aftermath. Flood events exhibiting unusually intense rainfall over a period of time, the duration of the flood event at the location, volume of water present at the location, nature, severity and type of damage caused, population relocation or severe disruption to 'normal' routine and time taken to return to relative 'normality' afterwards were considered for inclusion in the research. Also if residents considered the event itself unusual in some way, this was also a specific criterion as the uniqueness of the event may assist in memory recall, as it would have been an event out of the ordinary for most people. It was not possible to select flood events that were exactly alike as situation specific variables made that task impossible.

2.4.2 Recentness of Event

In order to maximise the possibility of obtaining relevant and accurate data from participants it was decided that the event had to have occurred within the last five years (no earlier than 1997). This was done in an attempt to limit the time that had elapsed between event and recall during interviews. It was felt that any longer than five years may cause participants to mix up flood events (of which there had been several in some areas) when retelling their experiences or to forget important details. Gross, 1992, states that 'Information can be held for between a few minutes and several years', (Gross, 1992, pp. 314) in the long-term memory. The quality of information retained and the ease of its retrieval may depend on the circumstances surrounding the original registration, storage and accessibility of the information, (Gross, 1992, pp. 309). The act of 'forgetting' information increases with time (Gross, 1992, pp. 335) but is affected by what happens to the individual between the original reception of the information and its recall (Gross, 1992, pp. 336). Therefore an arbitrary cut-off point of five years was given to events to be considered for inclusion.

2.4.3 Willingness to Participate

A willingness by the respondent to participate in the research was an important selection criterion because the type of questions asked could not be answered by anyone other than those directly affected. Post flood, residents may be actively concerned with clearing up the debris, attempting to rectify and damage and making alternative day to day provisions for the time needed to return to relative normality. Their immediate priority will not necessarily be to talk to a researcher about the event. Therefore if willingness to participate was shown

by any residents contacted, priority was given to that location. Indeed, many contacted initially did not feel able or willing to participate as the event had been too upsetting, they did not have time to spare, or they simply did not want to recall the events. This willingness to participate was therefore an important factor in the selection process of a suitable location.

2.4.4 Access to Population

Access to population was a selection criterion because although a defined number of houses or locations were clearly identifiable for inclusion in the research, the residents in some cases were not living in their homes post flood due to extensive damage to the property. Post-flood affected residents may need to temporarily relocate to other accommodation whilst flood repairs are being undertaken on their property. This meant that a community may be spread out with many either non-contactable (because they have not passed on details to authorities of their temporary lodgings) or geographically dispersed (such as staying with relatives in another part of the county or the country. These residents would be ideal for inclusion in the research due to their direct experience of the event but for access reasons could not be included.

2.4.5 Logistical and Practical Constraints

Logistical and practical constraints were included as selection criteria because the research was restricted by certain factors that had to be taken into consideration when defining the scope and nature of the project. Although some locations were considered for inclusion in the research, they were not deemed suitable due to the time and distance it would take to reach participants, the extra expenses that would be incurred for overnight accommodation and travelling. It was not an option to relocate for a period of time to another location for the data collection period due to financial constraints therefore locations that were within a reasonable driving distance were selected.

2.5 Locations Considered

Once the selection criteria were finalised the next stage of the project was to develop a 'short-list' of potential locations, which had been flood affected in which to carry out the research. Floodline, the Environment Agency and the Meteorological office all had websites which provided accurate information on flood affected areas across the UK from which suitable locations might be sourced. These sites detailed the area affected, the intensity of the event and the damage sustained which offered a suitable starting point for identification of research locations. A short list of locations was developed, adhering to the criteria previously identified. This was used as the basis for further investigation via telephone or email with relevant official bodies in the area to determine if access would be granted to affected populations. The two main areas that were accepted and how they fulfilled the criteria are discussed further in this section. A map illustrating the selected locations in the UK is also provided.

2.5.1 Locations Considered but Rejected

The following locations were considered for inclusion in the research project but were rejected, as they did not meet the selection criteria.

2.5.1.1 Uckfield and Lewes, East Sussex

Uckfield in East Sussex was flooded twice in three weeks during the Autumn 2000 event (The Guardian Online, November 6, 2000) and the central commercial area was flooded 'by up to 1m of rapidly flowing water' (RMS, October, 2003, pp. 7). It was estimated that nearly 80% of the 400 business on a major industrial estate located near the river were flooded (RMS, November, 2003, pp. 7). 'The River Ouse burst through a newly built retaining wall into the lower parts of Lewes' town centre...leading to the evacuation of 300 homes' (RMS, November, 2003, pp. 8).

Although these locations experienced very heavy rainfall they were rejected as suitable for inclusion in the project for a number of reasons. Firstly, the locations were too far away from the students university and would therefore incur high travel and time costs. Secondly, in Uckfield in particular, most of the damaged properties were business premises rather than residential and finally, and perhaps most importantly, there was also unwillingness on the part of local residents to participate at the time. The amount of damage sustained in Lewes especially was considerable and many people were not interested in a research project as they were concerned with rectifying the damage to their homes.

2.5.1.2 Exton and West Meon, Hampshire

Exton and West Meon in Hampshire were heavily flooded, but were also rejected on similar grounds to those in East Sussex. Attempts to contact local authorities such as the Environment Agency for their co-operation in the research were unsuccessful. These locations were also a considerable drive away from the researcher's university, which would be time consuming and also financially not cost effective as there would be a need to pay for overnight accommodation.

2.5.1.3 Selby, Barlby and Cawood, North Yorkshire

Selby, Barlby and Cawood in North Yorkshire, were all seriously flood affected in Autumn 2000 and initial contact with local points of contact (librarians) in the area was positive. However, further attempts via email, telephone and fax to elicit assistance from community leaders in the church and at local authority level were met without success. Barlby in particular had an active residents group but attempts to contact the founder were not successful as this individual had been temporarily re-housed. The researcher did also try to contact this individual via the media as local interviews had been given, but this was not successful. The presence of a community action group also may have affected the local authority's reluctance to assist in this project due to the high media coverage at the time.

2.5.1.4 Leighton Buzzard and Sandy, Bedfordshire

These locations were initially considered due to good proximity to the researcher's university, which would reduce time, money and travelling expenditure. But after consultation with the local authority it was evident that these locations had not suffered heavy flood damage or loss compared to other potential research locations so they were rejected.

2.5.2 Locations Considered and Accepted

The key points regarding each flood event chosen for inclusion and how it met the criteria will be discussed, starting with the flooding in Yorkshire in 2000. The case study work was

conducted here initially and provided the necessary groundwork to continue to the next stage, which was conducted in Northamptonshire concerning the flood of 1998 (the second location selected). Both case studies will provide the main details of the two events to give a basic understanding of what happened and the severity the event had upon the population as a whole.

Figure 1 - Selected Flood Locations in the UK

2.5.3 Autumn 2000 Flood, Yorkshire – Criteria Evaluation

The flood of autumn 2000 was, according to the Environmental Agency, the most severe and prolonged flood this country has experienced for over half a century (Environment Agency (EA) North East Region, Autumn 2000 Floods Review, 2000). This made the event unique in that the severity, intensity, duration and subsequent damage that ensued were far greater than had been experienced by many people living in the UK. As this flood had affected much of the country, was extreme and had only recently occurred, this provided a potentially rich source of immediately recoverable data from participants who had been affected. Issues regarding poor memory recall of the event due to time lapse could be regarded as minimal because the flood was still 'fresh' in the participants' minds as they were still actively dealing with the aftermath.

Yorkshire was chosen out of the short list of several locations where serious damage had occurred and because initial contact by the researcher had been well received. This is not a small point when considering a location for research of this nature as in the aftermath of any serious event many people will be actively concerning themselves with the laborious tasks of cleaning up, assessing damages, relocating to new accommodation if extensive damage has occurred and so on. Hence, to actually receive positive encouragement at this difficult time to requests for interviews will automatically 'promote' one location over another because potential participants are more receptive to assisting.

Conversely, requests in other locations were met with non-response or a brisk 'brush-off' on the telephone or via email. The researcher was entirely aware that this may occur and made contact with several communities across the UK simultaneously before a positive response was received. Of the locations contacted in Yorkshire, only residents of the twin towns of Malton and Norton-on-Derwent in Yorkshire agreed to discuss the research further.

After initial contact was well received by residents in Yorkshire, local authorities were not as helpful as was hoped in securing further participants for the next stages of the project. Effort was made to limit where possible over use of 'snowball' sampling, a strategy whereby those initially contacted are asked to suggest further people that may wish to participate, by requesting sampling frames of addresses from the local authorities. This was because it was hoped that a more random and hopefully representative cross section of the affected community could be obtained with data held by the local authorities to add robustness to the final thesis conclusions.

Unfortunately this was not feasible. As previously suggested, in the post-flood period, those most affected many have to relocate to alternative accommodation for the duration of many months to allow repairs on their currently uninhabitable property. Essentially this meant that entire communities were dispersed across the county or even the country in guest houses, hotels, friends or family's homes therefore making establishing contact extremely difficult. Local authorities and key organisations had a certain amount of affected person's details but not all and these would not be released without prior consent of the individuals concerned.

Also a second and possibly, in the opinion of this researcher, more substantial reason for non-assistance by the local authorities and concerned organisations in the area at the time was made aware to the researcher in an informal telephone discussion. A contact suggested that several avenues of help may be closed to the researcher due to pressure in many of the key organisations from active resident groups and media activity speculating about the appropriation of blame and obvious concern about this by those in a position of responsibility. Hence, it was with much reluctance that a second location was sought. This location is detailed further in this chapter.

2.5.4 Autumn 2000 Flood, Yorkshire – Overview

'Autumn 2000 was the wettest on record, leaving the entire Region's river catchments saturated by the time some 250mm of rain fell over a two-week period between the 26th October and 8th November 2000. This was equivalent to the average amount usually expected in the whole of October and November together, and caused the most dramatic, widespread and prolonged flood seen for at least half a century' (Environment Agency (EA) North East Region, Autumn 2000 Floods Review, 2000, pp. 1).

In Yorkshire, the flooding reached its peak during the last week of October and first weekend in November resulting in almost 2000 properties being flooded (EA, Regional Report, 2000, pp. 1). The EA identified three separate rainfall events that combined to cause this magnitude of flooding, 29th/30th October, 2nd November and 5th/6th November 2000 (EA Regional Report, 2000, pp. 17). The main causes of flooding were overtopping of defences, outflanking of defences, no flood protection at all and local drainage and surface water problems amongst others (EA, Regional Report, 2000, pp. 1). Newspaper reports suggested that 6000 residents were warned that they might have to leave their homes on the 6th November 2000 (The Guardian Online, 2000). But 'Despite record levels of flooding, no lives (in the Yorkshire region) were lost' (EA Regional Report, 2000, pp. 1 – brackets by researcher).

Into the first week of November 2000, 18 severe flood warnings were in place in the North-East of England, transport infrastructure was significantly disrupted and many were evacuated from their homes (EA Regional Report, 2000 and The Guardian Online, 2000). Mid-week saw yet more evacuations due to flooding in North Yorkshire when the River Derwent reached record levels and drainage problems in York forced 30 people to evacuate during the night (BBC News Online, 2000). Media reports suggested that 'disaster tourists' were rife with 'tens of thousands of motorists' setting out to 'see the latest tourist attractions – the high water at Bewdley and York' (The Guardian Online, November 6th 2000). The army was called in to replace or repair insufficient defences, with an estimated quarter of a million sandbags being laid in an effort to protect property and lives (BBC News Online, 2000). Response activities were also undertaken by the Environment Agency, emergency services, local authority, the army and various voluntary organisations.

Those evacuated from some of the worst affected areas (such as Norton-on-Derwent) were only able to return home ten months after the event (Floodline, Case Study 2, 2000). It was estimated that the insurance bill for this event nationally was in the region of £500m, train operators were losing £2m per day in income and it was the most devastating event since the great flood of 1947 (The Guardian Online, November 5th 2000).

2.5.5 Easter 1998 Flood, Northamptonshire – Criteria Evaluation

The second flood event chosen for the research was that of the Easter 1998 floods in Northamptonshire. All previous efforts to secure a second location from those identified as severely affected in the autumn 2000 event were met without success. During this period the researcher gave a presentation on her initial findings from focus group work conducted in the two Yorkshire towns previously specified. A member of the Emergency Planning Unit in Northamptonshire County council was in the audience and approached the researcher afterwards and offered any assistance required if the research could include Northamptonshire.

This option was reviewed by the researcher and her supervisor in terms of how it would affect the research already conducted, the potential adverse effects the time elapsed from flood event to present day may have on data, the improved logistics and costs of carrying out data collection and sourcing participants in a closer location and indeed whether this location could be included within the research terms already set out. It was concluded that although the Northamptonshire event had occurred some years previously it was still potentially viable for inclusion in the research project as it fulfilled the research criteria used to select Yorkshire.

The location, population, date of the event and geographical severity were obviously different to the autumn 2000 (Yorkshire) event; however Northamptonshire could be a second location for the following reasons. Firstly, a case study undertaken in the first few months following the 2000 event would provide key areas for further exploration in subsequent interviews. This grounded approach would ensure that relevant post-flood issues could be identified at the time by those directly affected.

Flood affected communities generally show common traits; there is water damage, there may be a need for relocation to other premises, there may be a loss of property due to water damage, affected people will have to deal with the aftermath, which may take some time depending on how seriously they were affected and in certain situations there may be a certain amount of stress as a direct result of the event. Therefore, it could be established what the key events, activities, losses, methods of coping and sources of stress were in a recently affected population these could then be used to develop questions, memory prompts and areas for further discussion with a population in which several years had passed since the Easter 1998 flood.

Northamptonshire has a history of floods but the Easter 1998 flood was regarded as the most severe of these in recent times and the one that had more long-term consequences for residents. In this respect it was very similar to the effect the autumn 2000 event had on the residents of the two towns in Yorkshire. Both events were preceded by heavy rainfall and when the floodwaters arrived, residents were given little or no warning. The volume of water in both cases was immense and caused extensive damage to property and personal effects, people were relocated to new accommodation and the event itself was considered unusual because of its intensity compared to anything previously experienced.

The Emergency Planning Unit offered all assistance it could to the researcher, including a list of addresses and areas affected at the time. As this event had occurred in 1998 it was

accepted that any residents who may have been relocated on a temporary basis whilst flood damage repairs were being undertaken, would have either moved back into their property or had moved on. Therefore the concern regarding a dispersed population was not as much of an issue as it was with the Yorkshire participants. However, a test of the sampling frame to assess its accuracy, regarding affected persons still living at that address, needed to be conducted before any interviews could take place. Initial interviews were conducted to check the issue of memory or recall of information and these suggested that participant's memory of events was good. Many residents were still actively concerned with this aftermath and issues arising from this event and there was a genuine willingness to participate even several years post-event. The actual method and findings from this initial data collection are detailed further in this thesis.

Northamptonshire was also suitable for inclusion, as the location was geographically close to the researcher's university which facilitated ease of contact, reduced time needed to reach participants for appointments and lowered overall financial costs (such as petrol and the need for overnight accommodation). Hence, it was taken that all acceptable routes relating to the autumn 2000 affected locations had been exhausted and Northamptonshire provided a suitable second location to continue the research.

2.5.6 Easter 1998 Flood, Northamptonshire – Overview

The Easter floods as they have come to be known started on the Maundy Thursday (April 9th 1998) when the whole county '...suffered widespread flash surface flooding with riverine flooding in the west of the county' (Snelling, presentation, 2001, pp. 2). 'Sustained heavy rain stretching across central England and into Wales brought rivers into flood throughout these areas on Thursday 9 April and Good Friday 1998. Rainfall varied from place to place but was exceptionally heavy and prolonged over...Northamptonshire...' (Independent Review of the Easter Floods 1998, Centre for Computational Geography, Section 1.1, 1998, pp. 4/93 web reference).

At 9am the county council was aware of calls to the fire brigade to pump out properties and by lunchtime the first reception centre was opened (Snelling, 2001, presentation, pp. 2). Roads were closed, communities were isolated and all services were severely stretched (Snelling, 2001, presentation, pp. 2). Telecommunications faltered under the sheer volume of information being relayed and roads were congested with extra holiday traffic adding to the problems. Late evening the rain eased and at decision to stand down from major incident status was taken by the County council and Assistant Chief Constable at 23:30 (Snelling, 2001, presentation, pp. 3).

However, between the hours of 01:30 and 02:00 on Good Friday morning Northamptonshire was involved in '...a major incident with over 2,000 houses flooded and water rapidly rising' (Snelling, 2001, presentation, pp. 3). Flooding continued over the following three days and Northamptonshire County council estimates that '...about 3,500 residential properties were flooded across the County, over 2,500 of them in Northampton and a large number of commercial properties were also flooded' (Snelling, 2001, presentation, pp. 3). There was some disagreement in the aftermath as to how many properties were affected; this may in part be due to the information management at the time.

'In Northampton alone, over 2,000 properties were flooded, 2 people died and 150 people treated in hospital for hypothermia and injuries sustained through flooding. The appalling damage to property and distress caused to people in Northampton, Evesham and other parts of central England during the Easter floods have a number of direct and indirect causes, including the highly intense and unusual rainfall pattern and difficulties in predicting its consequences and alerting residents.' (House of Commons, Sixth Annual Report, Session 1997 – 1998, Section III, paragraph 109).

2.6 Qualitative Methodology – Validity and Reliability

2.6.1 Introduction

This section relates to the credibility of the research project undertaken, and discusses the techniques and methods that were used to ensure the integrity, validity and accuracy of the findings presented. The common causes of poor or inaccurate data analysis are examined with accompanying information as to how these issues were overcome within the research.

2.6.2 Validity and Reliability

The integrity of the research and the confidence of subsequent findings are dependent on two key issues, validity and reliability. As Silverman 2000 states, 'Unless you can show your audience the procedures you used to ensure that your methods were reliable and your conclusions valid, there is little point aiming to conclude a research dissertation' (Silverman, 2000, pp. 175).

Validity refers to the degree in which the findings correctly map the issue under scrutiny. Silverman states ''Validity' is another word for truth' (Silverman, 2000, pp. 175). However, the author cautions that there is 'no 'golden key' to validity' (Silverman, 2000, pp. 176), referring to the many methods by which validity may be demonstrated.

In order to ensure the quality of the findings, strong internal and external validity must be shown. Internal validity 'refers to the judgement that an experiment's procedures are sufficient to justify rejection or provisional acceptance of its hypotheses' (Lee, 1999, pp. 152). The findings can then be shown to accurately map the issue under research through demonstration of sound content, construct, convergent and discriminant validity (Lee, 1999). Content validity 'is an essential qualitative judgement about content coverage' (Lee, 1999, pp. 150) and that the research has tackled all the areas relevant to the theme or topic under investigation. Good construct validity suggests that the scores (or findings) from the measurement procedure reflect what the researcher claims they do and not something else (Lee, 1999, pp. 151, brackets not in original).

Convergent validity relates to use of data from a variety of sources to confirm the findings presented and discriminant validity shows how sources of information diverge as predicted by the theory or model (Yin, 1994). Construct validity can be improved by utilisation of convergence and discriminant validity techniques. Firstly data can be collected from a variety of sources not just through one method. Yin, 1994, suggests that documents, reports, newspaper articles, interviews, observation techniques and participants personal notes can be utilised here. This will confirm findings as they will be based on more than a

single data collection technique or source and this will also assist in providing evidence for discriminant validity, i.e. use of negative cases to test constructs and findings (Quinn Patton, 1990).

External validity relates to how well the findings can be generalised across other populations, which may differ in size or location (Lee, 1999). The only solution here is to replicate the research and ask the same questions in another location (Yin, 1994). Here the extent or scope of use of a particular model or theory can be assessed 'if two or more cases show similar results' (Lee, 1999, pp. 156). Here the second case, if it shows similar findings, provides 'evidence of external validity' (Lee, 1999, pp. 156).

Reliability refers to 'the consistency and stability of "scores"' (Lee, 1999, pp. 146). Here, reliability does not relate to the measurement procedures themselves but to the outcome, or scores, resulting from this measurement (Lee, 1999, pp. 147). Demonstrating the extent to which findings can be replicated or reproduced by someone else given the same circumstances increases reliability.

Here Yin (1994) suggests two tactics to improve the reliability of research. Firstly, the researcher should write a thorough protocol of the projects to include items such as aims, objectives, research issues, methodology, interviewer credentials, sources of information and methods of analysis used. Secondly, Yin (1994) suggests that all data used should be presented in a clear and accountable manner that allows for another researcher to inspect the raw data. With the case of interviews the transcripts themselves should be reproduced as faithfully as possible to the original conversation and made available to other researchers so long as ethical considerations, such as confidentiality of the individual, are met.

Quinn Patton, 1990, suggests several ways in which the quality of the analysis can be improved and thus reduce bias within the research. Testing of rival theories, explanations or models, seeking out and justifying negative cases that do not immediately 'fit' the model to be used and triangulation of data sources, data reviewers and data collection or analysis methods (Quinn Patton, 1990, pp. 462 – 470). These methods are also suggested by Miles and Huberman, 1994, who state thirteen different tactics they believe can increase confidence in findings and thus ensure rigour within the research. These include those detailed by Quinn Patton (1990) but additionally suggest weighting evidence to establish which sources are more trustworthy, looking for causal relationships between findings and themes and look for the unexpected and surprising within the data (Miles and Huberman, 1994, pp. 263) to add support to the final conclusions drawn.

2.6.3 Threats to Confidence in Research Findings

However comprehensive the research design, threats to confidence in the findings can occur and it is important to recognise the sources these potentially damaging errors can come from. Qualitative projects generally have many potential weaknesses and therefore there is much scope for increased error to be introduced to the research throughout the project.

Threats to validity and reliability can be due to the methodology employed by researchers, the research design, the sampling technique, interviewer or participant bias, data collection

technique, method of analysis used, data handling and the interviewers own experience (Quinn Patton, 1990). Therefore, checks, tests and continued awareness at all stages of the research must be proven to ensure the findings represent what the researcher thinks they do.

Threats to reliability can occur when interview tapes are incorrectly or incompletely transcribed, misleading questions or leading prompts are used within the interview itself or poor original coding by the original researcher (Kvale, 1996). Poor validity can result when the research itself it viewed as not credible (i.e. it does not represent the world view it purports to) and the level of objectivity is suspect (Marshall and Rossman, 1995). Here objectivity refers to the extent from which findings are free from researcher bias (Lee, 1999).

2.6.4 Actions Taken to Increase Confidence in Findings

In order to limit the level of bias and error with the project, the researcher took the following actions to ensure strong validity and reliability within the findings.

The case study interview was conducted before any specific model or theory was decided upon. This was to ensure that the researcher, as far as possible, did not enter with any literary bias 'looking' for certain data to 'fit' a model. This allowed the participants to talk about what was most salient to them regarding the flood in Autumn 2000 and for the researcher to assess the key topics as provided.

Transcription of each interview was as faithful as possible including reproducing pauses in conversation or breaks when conversation overlapped. However, these breaks were not timed as it was felt this would be of no benefit or value to the thesis aims and objectives. Each transcript is available in its entirety for other researchers to view, but with any potentially identifying information removed, such as names, addresses or place references. This is to ensure the complete confidentiality of the participant and the lack of this information was not deemed detrimental to the research. The transcripts are freely available upon request to demonstrate reliability of findings based on data collected, to other interested parties.

Data relating to the two floods, Autumn 2000 and Easter 1998 events was collected via a variety of sources, newspapers from the region, internet and on-line BBC reports, interviews and focus groups. This was in addition to a comprehensive literature review regarding the issues previously known as salient to the study of disasters.

Although the researcher originally intended to conduct her research in just one location, the necessity of moving to a second one was deemed fortuitous. It provided excellent opportunity to test the model, its findings and the research methodology within a second population and event, thus demonstrating a greater level of reliability and confidence in the findings presented.

Data was collected using a variety of methods such as in-depth interviews, focus groups, questionnaires and personal correspondence with participants. This was further supported by data from literary sources and previous research findings to satisfy the requirements for convergent validity through triangulation of data sources in the data collection process.

Reliability was further strengthened by the transparent and accountable manner the researcher presented her methodology, analysis and findings within the thesis. A summary giving guidance on the strengths and weaknesses evident within the research is provided in Chapter Seven. The researcher also took care to ensure both the successes and failures of the research were clearly discussed and stated.

Triangulation of the data itself was undertaken on all transcripts. After careful development of initial codes for all three levels of analysis (Hobfoll, Lazarus and Folkman and the coping categories) all transcripts were given to a second coder. The second coder, a university graduate, was provided with direction on how to do the triangulation process, the codes and their definitions and had no prior knowledge of qualitative methodology or flood research. This was a deliberate choice as the researcher felt the codes should be able to be understood clearly and applied accurately by anyone regardless of their methodological knowledge.

Following examination of the second coder's revision certain changes to the codes were undertaken as interrater reliability was only approximately 60% and there seemed to be confusion regarding the more subjective aspects of the model – specifically the Condition and Personal Characteristics codes. Following the revisions interrater reliability reached over 80%. This figure resulted from the random selection of 100 samples of text coded independently by the second coder following revision of the original codes, from which there was agreement in over 80% of cases between the researcher and the second coder.

This revision process took three attempts to refine the codes to an acceptable standard and involved careful consideration of the data that was surprising or that was outside of the boundaries of the existing models. Indeed, this necessitated expansion of the model codes and definitions and as such added support to the research aims that this was a necessary and valid research objective. Namely that the COR model required broadening and was slightly restrictive in its category definitions.

A third rater was also employed to review the codes agreed upon by the researcher and the second coder to ensure the codes were accurate and encompassing. The third rater was a current PhD researcher at the university and had prior knowledge of qualitative methodology. This person was chosen to ensure that the codes developed with the second coder were accurate and valid. This third rater was provided with a random sample of 100 pieces of text per model or theory used (100 for the Conservation of Resources model, 100 for Appraisal theory and 100 for the coping definitions) and asked to code them in using the guidance supplied to the second rater in relation to definitions, methodology and codes. A satisfactory level of 70% inter-rater reliability between all three coders was achieved.

In relation to the suggestion that causal relationships should be identified to add weight to findings (i.e. does A cause B?) it was an aim of this study to identify what type of loss elicits which type of coping to deal with this loss. However, although the loss typically preceded the coping activity some coping mechanisms may have been inherent in the individual (for example as in personality traits or dispositions to a certain method of coping based on prior experience) before the loss occurs. Therefore, the researcher attempted through the research aims and objectives, to facilitate the search for causal relationships

between two constructs, loss and coping within a flood context, of those activities actually undertaken as a result of loss rather than those inherent. To examine inherent or latent coping characteristics may have involved use of another measure such as a personality questionnaire and neither personality types nor their quantitative measures were within the scope of the research.

Easterby-Smith, Thorpe and Lowe, 2002, state that interviewer bias can occur for several reasons, interviewers may impose their own view or frame of reference upon the participant in asking questions and interpreting the answers or the researcher may lead the participant into answering in a certain manner. To avoid this, the researcher attempted to adhere to a list of probes suggested by the authors as useful to avoid poor quality data gathering. These are the basic, explanatory, focused and silent probes and use of drawing out, giving ideas or suggestions and mirroring or reflecting the participants point in the researcher's own words (Easterby-Smith, Thorpe and Lowe, 2002, pp. 93). The researcher also tried to avoid use of leading probes such as 'So you would say you were really satisfied? (Easterby-Smith, Thorpe and Lowe, 2002, pp. 93).

Finally, the quality of the data was assured through establishing trust with the interviewee regarding the researcher's own intentions and motivations. This social interaction is important as lack of trust may cause the participant to give misleading, limited or incomplete information regarding the issue (Jones, 1985). Indeed, Easterby-Smith, Thorpe and Lowe 2002, state that the relationship between interviewer and participant can also be affected by how relevant the issue is to the participant and thus impact upon the quality of the data collected. In this regard, the researcher was assured that the issue of flooding was particularly salient to the participants having experienced its effects first hand and many welcomed the opportunity to discuss their views with her.

2.7 Ethical Considerations

Careful consideration was given to the ethics of conducting research of this nature in line with British Psychological Society (BPS) guidelines. An ethical proposal regarding the research was developed, sent for and granted approval by the ethics committee at Cranfield University. All levels of the research project were conducted inline with following criteria:

1. **Consent**
   The objectives of the investigation were stated to the potential participants by letter, phone or in person. All aspects of the research, where their contribution may be used and any questions regarding the research were answered to the fullest capacity of the researcher. No payment was given or offered to potential participants but all were asked if they would like a summary copy of the research once it was available. Written consent was requested of all participants before interview stage.

2. **Deception**
   No information was withheld from participants at any time. All questions were answered honestly and the research did not call for any form of deception to be undertaken. All participants were kept fully aware of the aims, objectives, nature and scope of the research at all times.

3. **Debriefing**
Following any participation all interviewees or questionnaire respondents were given the option to receive a summary of the research findings once the thesis was complete. At the end of each interview the researcher took time to ask if the participant's experience of the interview was positive or negative and if there were any misconceptions that needed to be rectified.

4. **Withdrawal from the Research**
During initial telephone conversations when organising interviews or in any correspondence relating to the questionnaire the option for participants to withdraw at any time was stressed. This was again repeated before the interview commenced. Participants were advised that they were not under obligation to continue and could withdraw at any stage. With particular respect to the interview section of the research, failure to make contact with a potential participant (after having submitted their contact details previously) after three telephone call attempts to establish an interview date was taken as indication of withdrawal. No further action was made with respect to including this person in the research.

5. **Confidentiality and Anonymity**
Any contact or personal information obtained about a participant was held in the strictest confidence at all times. No other individual was allowed access to the information collected and all reference to participants, including location or personal details, which may identify them in transcripts or analysis, were omitted in the thesis.

6. **Protection of Participants**
Respect for participants welfare and safety was paramount at all times. As this research did not call for observational work or experimental testing to be conducted physical safety was not a concern. However emotional safety and levels of potential distress the sensitive subject matter may cause were to be carefully considered and limited as far as possible. All participants were fully briefed verbally before the start of the interview regarding the nature and content of the research and the possible effects it may have for them emotionally. It was stressed that the subject matter may bring old emotions to the surface and that they should be prepared for this. The researcher reacted immediately to any indication of possible stressful impact of the questioning (such as crying or agitation) and asked if the participant would like the tape to be turned off. The participant was then asked if they wished to continue. If the participant wished to continue but was visibly upset, the researcher took one of two courses of action: either she ended the interview at the earliest opportunity or she took the interview to a neutral point. Here the researcher would discuss something unrelated to the interview or would make general conversation until the participant was less upset. They were then again asked if they would like to continue.

3.0 Case Study

3.1 Exploratory Interview

As discussed in Chapter Two, it was felt that the project would benefit from case study work of an exploratory nature. This chapter discusses the initial interview that was conducted and details the procedure followed, the ethical considerations observed, the issues and themes covered and the conclusions drawn from this stage. The method of analysis used is detailed showing how the COR model, cognitive-relational theory and coping definitions previously defined in Chapter One were applied. An overview of the interview is also provided. It will also show, in the results and discussion section, how this interview was used in preparation for the focus groups work.

3.1.1 Introduction

The first stage of the research was to conduct one lengthy unstructured interview in North Yorkshire within the first few weeks of the flood event of autumn 2000. This interview would be used to understand the post-flood situation from the residents' perspective as they were living it, give opportunity to ask questions on a range of issues to establish if certain lines of enquiry required further development and to obtain information on what issues the research should seek to include. This interview was then to be used as the basis for further exploratory work via focus groups and to refine the objectives and scope of the research itself.

Initial contact was made with local librarians and clergy across several towns and villages in Yorkshire by phone and follow-up e-mails regarding the researcher's needs and verification of where she was from. Originally two areas were approached, Ryedale and Selby, as these fulfilled the selection criteria. A4 posters for display stating the researchers' interests and requirements were faxed to these areas and librarians were asked to display them in a prominent position where possible, in order to attract attention. The posters had the researcher's contact details clearly stated so that those interested could either leave their details with the librarian or contact the researcher directly.

Libraries were selected as the first point of contact as they were extremely helpful and when questioned, seemed to be knowledgeable about the events and people who were involved. More importantly, they were also one of the few public and community resources that were functioning and not pre-occupied with managing or assisting in the post-flood situation as many local stores, authorities and services were. The researcher was aware at the stage of trying not to be intrusive or to 'get in the way' of the community trying to recoup from this event and as such decided to contact those not directly involved in the recovery activities. Also, many locals were still adjusting to the post-flood situation and other methods, such as mail shots or writing an article for the local newspaper, were deemed far too intrusive at this stage and the researcher was made aware that many did not live in their homes at that time so would not receive the information.

Unfortunately, these posters seemed to have little impact and after one week only four people from the Ryedale area expressed an interest in participating. At this stage a wider advertising campaign was thought of but delayed until after those who had expressed interest had been contacted, in order to understand the local issues that may influence participation in this project.

3.1.2 The Interview Procedure

Of the four who expressed an interest in participating, a librarian passed on the details of a local couple who had been affected by the floods, had seen the poster and who wanted to speak to the researcher about their experience. The librarian was a personal friend of the couple and both she and the gentleman (Mr 1) were willing to talk about their experiences together. Mrs 2 was not flooded directly on her property, rather she experienced inconvenience and was cut off from the village for several days due to flooding around her property.

At this stage Mr 1's wife was not willing to be interviewed on tape although she did want to be involved in the research. The researcher took the decision to conduct one lengthy, unstructured interview with the three individuals to investigate any key issues arising from the floods and what might be causing such reticence of participation amongst residents. The fourth person declined to participate.

It was hoped that the interview would highlight local concerns that may impact on the success of the research project and identify options for further exploration in focus groups. The decision to conduct an unstructured interview was so that the researcher could not influence the topics that were discussed or the participant's own agenda, so that she could fully understand the situation from their perspective rather than her own research needs.

This interview was conducted in the couple's own house, which gave the researcher a first hand view of the devastation that the 2000 flood left behind. The bottom floor of the three-story house was totally devastated and dehumidifiers were placed around to dry out the house. The residents were living upstairs on the two top floors, with all their furniture salvaged from the bottom floor packed in around them. The house was cold and damp, even with dehumidifiers and gas heaters on maximum and Mr and Mrs 1 were quite apologetic about the state of their home and how cold it was, although they also wanted the researcher to witness first hand the actual impact of the floods. This was approximately nine weeks following the flooding and on a personal note was a real 'eye opener' as the house resembled a building site and the researcher could empathise with the difficult living conditions and ongoing problems these residents were facing.

Although Mrs 1 was not supposed to be at the interview the researcher should have made allowance for her arrival at any stage, as it was conducted in her own home. As she had expressed reticence at participating, due to the use of a tape recorder, the researcher (wrongly) assumed she would not want to join in. As it turned out she had some interesting views on the situation and the researcher believes that if questions had been directed to her personally, perhaps on a one-to-one situation, different answers from that of her husband may have resulted. This is because she seemed to place more emphasis on other issues arising from the flood, than her husband concentrated on. (Such as her pets, friends and

Christmas plans). She also was more talkative off-tape expressing her opinions on the events and how they had affected her personally, whereas Mr 1 was keen to discuss the more practical issues arising from such an event.

Mrs 1 appeared more distressed about the flood and its impact and remained very quiet throughout most of the interview. However, when more personally emotive subjects such as her pets, animal welfare and friends arose, she quickly joined in the conversation. Her husband however, was generally more vocal in his opinions on other matters such as the logistics of daily living and cleaning up. At these points in conversation Mrs 1 tended to become slightly quieter and defer to her husband when he began talking, hence the feeling that if she was interviewed on her own, the researcher might have gained a slightly different perspective on the event. (NB. Mrs 1 was contacted several months after the interview and asked if she would like to take part in an individual interview but she declined on grounds of ill health and emotional impact of the event still affecting her).

The researcher believed she gained the confidence of those present and that they were happy to offer their own photos of the floods (1999 and 2000) to make copies for the researcher's own records. Copies of these are provided in Appendix A. The interview was shorter than expected, which identified the need to adapt the interview style to suit the circumstances a little better and to take into consideration the level of responsiveness from each participant. The original method was to ask general questions to hopefully produce more spontaneous and unbiased answers, but as the interview progressed, it seemed that direct questions would produce fuller answers, especially from Mr 1.

3.1.3 Analyses of Case Study Interview

3.1.3.1 Level One Coding: Resources Analysis

The transcription was originally assessed using Hobfoll's COR categorisations of Object, Condition, Personal Characteristic, Energy and Social Support Resources as guidance for classifying the data collected. This was to identify if this model was appropriate for use in the research.

Other aspects of the model tested included the central tenet which states that '...individuals strive to obtain, retain, protect and foster those things that they value' (Hobfoll, 2001, pp. 341), Principle 1, the concept of saliency of loss – that loss is more important to us than gain (Hobfoll, 2001, pp. 343) and Corollary 2 which states '...those who lack resources are not only more vulnerable to resource loss, but that initial loss begets future loss', (Hobfoll, 2001, pp. 354).

Hobfoll, 2001 also states '...that psychological stress will occur in one of three instances. Stress will occur: (1) when individuals' resources are threatened with loss, (2) when individuals' resources are actually lost, or (3) where individuals fail to gain sufficient resources following significant resource investment' (Hobfoll, 2001, pp. 341 – 342). Indication of support for this theory was also sought.

As the researcher was unsure as to what the key issues might be, she decided to begin the interview with the question, 'How did it all start?' to allow the participants to direct the

discussion as they saw fit. Mr 1 began by commenting on how the water kept coming up and that their initial activities were to move items out of the path of the water. Physical items are classified as Object Resources – those articles that have value to the individual, which may or may not be financial (Hobfoll, 1989).

Mr 1 was very aware of the water movement and how it surged higher and lower at different times over the fourteen-day period. He tried to clean out the house by swilling clean water but because the water came up again, he felt he had wasted his time twice (Case Study Interview, pp. 1). His initial discussion was concerned with timings of events and gaining information to assist him in his decision-making processes throughout the event.

Hobfoll classifies these as Energy Resources – time, information and money, which are used to fulfil some other requirement of the individual within any given situation (Hobfoll, 1989). Mr 1 also mentions how each time it rains for more than half a day he goes down to the river to check the levels (Case Study Interview, pp. 7). He comments that the rain and its possible effects are always on his mind. He seemed to be very aware of the local rivers, their movement and local geography that may influence flooding in the area (Case Study Interview, pp. 8), thus increasing his personal information resources on these matters.

He commented on how the fact that the area had been flooded before (in 1999) perhaps gave residents a better idea of what to expect and how to cope and many just moved out straight away because they knew what they could expect if they stayed in the house. The previous flood event had not occurred nationally, so any resources from the Environment Agency or County Council that time were directed solely at the two towns rather than being spread thinly over more areas.

However, this time the whole country was affected so these available resources were distributed amongst more people and places and not exclusively available to residents in these two towns (Case Study Interview, pp. 10 – 11). Mr 1 felt from both an official response and resident's point of view that prior experience of flooding was an advantage in dealing with this flood. Mr 1 – 'If it hadn't had happened the first time, this time there would have been a lot of people scratching their heads not knowing what to do' (Case Study Interview, pp. 11).

Hobfoll suggests that there are two theoretical issues to be considered here. One, is that there is a 'Loss Spiral' (Hobfoll, 1989, pp. 519) in which increasing need will deplete the resources 'pool' available thus meaning less resources as time goes on for residents to call upon to help them. Secondly, prior experience is also deemed a resource, here classified as a Condition Resource, something that provides a secure foundation for the individual to move towards their goal (Hobfoll, 1989). That with this prior experience, ease of managing and adapting to the new situation is facilitated as this is a 'resource' that the individual can call upon to cope with the event.

Mr 1 suggested that the street, in which he lived, was quite 'eerie' (Case Study Interview, pp. 2) as there were no streetlights or front room lights on at night, which was slightly strange to him. He also remarked about an increased need to be vigilant when walking in the floodwaters because of open drains or debris (Case Study Interview, pp. 2). A local

resident set up a tractor to transport residents between the two towns but in the end this was useless, as the waters became too deep to travel in and the local police also supplied boats to facilitate residents travelling around the towns (Case Study Interview, pp. 2).

This section of the interview examines the concept of normality, which could be classified as a Condition Resource, but Hobfoll does not actually mention it in his writings. Normality is a highly subjective state which may be influenced by many factors, some unseen to the outside observer and as such is hard to quantity its existence and its subsequent loss. Put simply what is normal for one person may not be for another – hence the discrepancy and difficulty in quantifying it. Indicators such as language may help define the concept, for example Mr 1 uses the word 'strange' when he cites a specific situation (the lights in the street) alluding to a situation that is not usual in his opinion. He also comments on the community's efforts to return some sort of transportation system, branding it 'useless' thus suggesting it did not achieve its goal – to increase population movement across town and return a 'normality' of sorts to people's lives.

The researcher commented on the damage to the house that was clearly evident and asked if they had lost any personal effects also (Case Study Interview, pp. 2), to which Mr 1 replied, 'We moved everything; there was just one carpet that were lost. Nothing personal, we were sort of, we were lucky last time but we were more used to it this time so we knew, sort of...what we were doing' (Case Study Interview, pp. 2). He then went on to explain that many in the street had lost a lot of items; one gentleman lost everything on the bottom floor of his house such as furniture, which was virtually brand new (Case Study Interview, pp. 3). One wonders if the fact that the items are brand new makes the loss any harder to bear. Thus calling into question the notion of a hierarchy of resource loss; are some losses harder to cope with than others?

The same resident managed to get papers and smaller items upstairs to another flat. Mr 1 commented on the sense of community spirit that was present in town as residents helped others to lift items and generally assist those perceived as more vulnerable than themselves, such as the elderly. Hobfoll terms this a Social Support Resource, when friends, family and others assist the individual in coping with a situation (Hobfoll, 1989).

Mr 1's priorities were to clean the house as best he could with disinfectant and then get builders in to rectify the physical property damage. This type of coping is suggestive of employing an active or problem solving approach to a situation. Although these types of repairs are usually quite costly activities he was not concerned, as the insurance company would be paying. Thus there were other factors influencing his decision making process that allowed him choice in how he was able to cope with the situation. He had access to another Energy Resource, money, so he could take a particular course of action to cope with events.

But one financial strain evident was meeting the actual daily living expenses such as heating and food. The heating was on twenty-four hours a day and with exposed brick work and no flooring, it was costing significantly more than they were used to (Case Study Interview, pp. 3). Also, the kitchen was severely flood damaged and therefore was unusable so Mr 1 and his wife were living on take-away or restaurant food, which again was

expensive, (Case Study Interview, pp. 4). This Energy Resource, money, works on various levels and is not a constant across the entire situation. Money was available for some courses of action (such as the repairs financed by the insurance company), but not for others (meeting daily living expenses) indicating resources themselves may be influenced by other factors and may not be constant within any given situation.

This brought the discussion around to the topic of personal stress and strain of dealing with the situation. Mr 1 was quite positive about the fact that he worked, '...quite well under stress...' because his wife was extremely ill (Case Study Interview, pp. 4) but he knew that others were not dealing with it so well. A few marriages had broken up and some people had refused to come back to their homes and were either renting or selling their property and moving away. But he was sure that this was a pointless exercise as, Mr 1 – '...they're going to try and sell but what point in selling; you're going to get nought for them anyway?' (Case Study Interview, pp. 4)

These types of resources are termed Personal Characteristics and are taken to be what the person has inherently within themselves or their personality to deal with any situation (Hobfoll, 1989). Mr 1 appeared to have a positive outlook combined with a mostly problem solving coping manner. This is in contrast to others he suggests who perhaps did not cope so well with the situation, evident by relaying stories about marital break-up of neighbours or community members. The fact that others moved away from the area post-flood cannot immediately be taken as a disengagement coping method. There may be other factors that contributed to this decision and it would be false to speculate on those reasons. However, the break up of the community post flood does suggest that the social support networks that may have previously existed would be less readily available, if at all, due to geographical constraints. This may add further stress to the spiral of decline previously outlined.

When asked what they would like to see done now in the area, Mrs 2 became more animated. She and Mr 1 discussed cleaning the river, the Environmental Agency and their role in maintaining it and the costs involved (Case Study Interview, pp. 4). Mr 1 in particular seemed to show a great deal of knowledge about the local area and its environmental issues. There are two issues of interest here. Firstly, yet more evidence of problem solving coping methods; to be pro-active and take action to avoid future reoccurrences and secondly, an increase of an Energy Resource, information, by Mr 1 when discussing the river, the flooding events previously and the steps that needed to be taken to solve the flooding problems.

The issue of returning to a sense of normal living was raised again with reference to planning for future activities such as holidays or just organising the self on a daily basis (Case Study Interview, pp. 5). The issue of whether to pre-plan was especially acute for Mr 1 and his wife as the floods occurred just before Christmas and their arrangements to bring friends over to the house were cancelled. This was linked with the worry of what to do if you were away from your house when it rained, how would you take care of your property and contents? Mr 1 observed that although he felt he could rely on neighbours to feed the cat or something similar, it was perhaps too much to ask them to go into his house and start moving furniture, especially when everyone else was in the same position (Case Study Interview, pp. 6).

Here the discussion turns to the topic of normality and what affect such events have on maintaining that sense of normality. How secondary events, such as the possibility of future flood events, could alter or shape the individual's or others reaction to the situation and perhaps the level of resource support available at any given time. When asked about how he felt about the possibility of more rain and flooding in the future (Case Study Interview, pp. Page 5), he expressed concern and linked this to the perceived lack of problem solving on the part of others, perhaps indicating a feeling of powerlessness, Mr 1 – 'Well...I can see it happening again, but I'm not very happy about it happening again, but until there's something done, you can expect it' (Case Study Interview, pp. 5)

The researcher attempted to gauge any animosity or feeling of 'them and us' in the community by asking about problems between residents, if there was any disinterest with what was happening and if people had quite simply had enough of the floods (Case Study Interview, pp. 6). This was to establish if there were any other factors affecting the level or availability of social support accessible to affected residents. Mr 1 began by stating that there was no animosity between residents directly, although a proposed council scheme to levy £6 per household rates to go towards the flood defences was causing some friction (Case Study Interview, pp. 7).

He continued that although there was not a feeling of disinterest amongst residents, there was a lack of understanding or awareness on the part of those not directly affected, '...but a lot of people don't actually realise what you go through. They think, all right, fair enough, you get a lot of water in your house for a fortnight, it goes down, you dry everything out... But until they actually come and see...we had friends in a...club we come to, he came down to see me last week and he just couldn't believe that after all this time it's still as devastated downstairs as what it is... He just couldn't get it into his head until he actually saw it' (Case Study Interview, pp. 6)

This lack of understanding was further compounded by inappropriate use of humour by others, with comments such as, 'You'll flood again' (Case Study Interview, pp. 7) every time it rained. Mr 1 felt that if these people were flooded just once, that actually they would not find the whole situation as humorous. He did point out that he himself made fun at the situation by posing for a photograph in which is sitting on the front wall of the house in fishing gear, holding a rod and pretending to fish into the floodwaters. As he spoke he and his wife both laughed but he did mention that this was done after living with fourteen days of water and that he felt he had to do something (Case Study Interview, pp. 8).

The media were present in the two towns and Mr 1 seemed to perceive this as an advantage as local radio and TV were used as sources of information about meetings for example (Case Study Interview, pp. 9). Freelance photographers were taking pictures to sell but Mr 1 found them courteous and said that they had asked permission before taking shots (Case Study Interview, pp. 8). This media reaction is typical within disaster situations but can also hamper the individual in their coping effort by adding undue stress, although this was not the case for Mr 1.

The disruption to local services was quite evident, as the post office had been flooded, as had local businesses such as the bakery (Case Study Interview, pp. 11). This caused a

change in daily activities with people having to travel to other places to fulfil their usual shopping activities (Case Study Interview, pp. 12). Several aspects of the COR theory are evident here. Firstly, damage and loss to object resources, such as the local amenities – there are no goods available to buy because the shops themselves are damaged, even if people could get to the stores. Secondly, there is a loss of the condition resource of convenience and normality. These shops are where most people locally buy their weekly shop and due to the flood they had to travel elsewhere to buy supplies.

Residents themselves also disrupted their normal routine as a direct result of the flood. When asked if they had tried to keep as much normality as possible, Mr 1 replied, 'Within reason, yeah' (Case Study Interview, pp. Page 2). He continued, '...you didn't really want to be out of a night, its dangerous, you didn't know if there were any drains off or anything' (Case Study Interview, pp. 2). He was aware that even the usual act of walking in his neighbourhood was now tempered by new hazards and as such, he changed his normal behaviour accordingly.

Although Mrs 2 was not directly flooded, she still felt the effects. Her house was cut off from the roads and her normal shopping routine was hampered by needed to plan around the water and transportation issues (Case Study Interview, pp. 13). She mentioned that several people helped each other and if one person was going into town, they would collect things for others at the same time, such as mail (Case Study Interview, pp. 13), again, an example of a social support resource.

For Mrs 2 though, the flood did not have such a direct impact and her perception of the event is less powerful than that of Mr 1 as she states that it was, Mrs 2 – '...just an absolute nuisance really' (Case Study Interview, pp. 13). This also supports Hobfoll's theory that loss is related to saliency, that a loss is felt more acutely if it is their loss. When it is others loss it is not perceived as such an impact (Hobfoll, 2001, pp. 343).

She continued by discussing the time it took to get anything done, a point that Mr 1 concurred with, going on to explain about the length of time it took to get something as simple as a takeaway for lunch (Case Study Interview, pp. 14). Here again illustrating the energy resource of time being depleted. Mr 1 – 'Even just going for one of each[15] is like an hour's job...and it's only like a hundred yards away but it takes you nearly an hour to do it!' (Case Study Interview, pp. 14).

Mrs 1 became actively involved in the conversation when the subject of her dogs arose. One of the dogs had run away and was missing for a period of time and she was extremely concerned about the welfare of her pets (Case Study Interview, pp. 15 – 16). Not least, because an aviary the couple had outside was flooded and they lost their birds as well (off tape). Finally, the conversation ended on the topic of insurance again and the concern that no cover might make some people have to 'make do' with their property or personal effects being flood damaged as opposed to replacement (Case Study Interview, pp. 18). Thus suggesting that certain coping methods might not be available to all due to a lack of other

[15] This is a local term meaning to go for fish and chips – one of each.

resources (i.e. some may not be able to replace their damaged goods due to no financial help from the insurance company).

3.1.3.2 Conclusions of Resources Analysis

The case study transcript was analysed using the five resources categories outlined by Hobfoll in the COR model (1989) to assess the suitability of the model for use the research.

Object Resources appeared to be highly relevant to post-flood residents as flooding damaged physical items. These items then may or may not have affected their own ability to cope successfully with the event and its aftermath. Condition Resources were also alluded to in the form of marriage and experience. Energy Resources were seriously affected and relevant to residents. Time, money and knowledge were in short supply and participants discussed ways in which they overcame problems associated with low levels of these resources (i.e. finding out information about the previous flood events and what the authorities were doing about this one).

Personal Characteristics seemed to be shown through example and as a by-product of discussing a particular incident. Mr 1 commented on how he dealt well with stress, his sense of humour as a coping device was evident with his recollection of the fishing photo and his drive to get the situation 'sorted' by practical means. Social Support Resources were also alluded to by tales of neighbours, friends and family assisting one another in cleaning up, moving items and generally talking about the situation.

One interesting point that did emerge was confirmation that the concept of saliency of loss seemed to be supported. Hobfoll suggests that if a loss does not directly affect the individual, it becomes less salient to them (Hobfoll, 2001, pp. 343). Mrs 2 regarded the flood as an 'absolute nuisance really' but as she herself admits there was no direct loss to her because of the flood. Her level of discomfort was limited to inconvenience to daily routine and activities. Whereas Mr 1 and Mrs 1 readily admitted that if other people were directly flooded once, they would perhaps understand what it was like to live through floods properly and hence the impact they can have, 'A little bit of rain comes down and they all say, 'You'll get flooded again.' Cheerfully and you think, I could just do with you getting flooded just once and then you'd know about it' (Case Study Interview, pp. 8).

The concept of spiral of decline of resources was also raised when the topic of authority response and resources available to assist residents was discussed. It seemed that previously local authority and general 'official' response capacity had been more substantial as the flood had only affected the local region. However, in 1998 many areas across the country were flooded severely and residents felt that resources were divided amongst more regions. Same amount of resources but more people needed them, hence a depletion in available resources.

Whilst transcribing the researcher felt that the participant was telling their story of the flood, of how it affected them and what they did as the situation unfolded. The participant seemed to concentrate on those aspects particularly relevant to them at the time; for example for Mrs 2 it was the inconvenience, for Mr 1 it was the 'nuts and bolts' of sorting out the practical issues and for Mrs 1 it was her pets. This aspect of the project was not one

that had been anticipated and further research led to the inclusion of literature on the subject of narration and story telling following extreme situations. It was felt that this may assist in the analyses of the data as it would allow the COR categories to be examined as the 'story' unfolds.

The researcher deliberately chose an unstructured interview approach to allow the main topics and themes to be generated by the participants themselves rather than influenced by the researcher herself. This allowed the participants the freedom to direct the interview to the issues most pertinent at the time and limited interviewer bias in the discussion.

However one drawback became evident during the transcription stage when the researcher realised that the interview technique needed some refining for the next stage. By allowing participants to direct the conversation, the discussion had a tendency to wander into topics for several minutes at a time. These topics, whilst interesting and relevant to the participant did not appear to hold any value to the overall aims of the project and the researcher became aware that her technique of gently focusing the participant back onto flood related issues needed some work.

This event was still very recent and fresh in the participants' minds and they were still dealing with the aftermath nine weeks afterwards. Although more direct questioning would quite probably elicit fuller responses, it may also have risked increased emotional distress to the participants present at this initial interview. Hence a catch-22 situation existed. Should the researcher ask questions that are more direct to elicit comment on specific issues, at the risk of emotional discomfort, or should she allow participants to direct the conversation within a less rigid framework, but at the risk of not covering some topics of academic interest? The only option was to conduct all interviews within strict ethical guidelines to minimise emotional discomfort, which was possibly at the detriment to more comprehensive information gathering via direct questioning.

Also noted, as is usual in any conversation when one person speaks, the other responds with either a verbal uttering (such as 'uh-huh' or 'yeah') or his/her own comment on the issue in reply. The researcher allowed herself to fall into a common trap of responding verbally to almost every statement made which became a serious issue for transcription after having to write up lines of text of her own voice!

The use of an unstructured interview technique worked reasonably well as the proportion of topics raised within the discussion were approximately one-third by the researcher and two thirds by the participants. For example, Mr 1 initiated conversation on issues such as; moving object items, prior experience, coping methods, stress, hierarchy of affectedness and of loss (such as new items or old items damaged), time, information gathering, marital strain, humour and spiral of decline. The researcher raised discussion on the following topics; how the flood started, protection activities for the home, normality, types of effects lost, social support and finance.

With regards to testing the central tenet that people will work towards obtaining, retaining, protecting and fostering things they value (Hobfoll, 2001, pp. 341), this interview appeared to support this concept. Mr 1 described the activities he undertook to protect his home and

personal effects (Case Study Interview, pp. 1), to obtain insurance and builders to begin the process of repairs to the house (Case Study Interview, pp. 3) and even going as far as to retain the services of the builder who did the repairs following a previous flood (Case Study Interview, pp. 3).

The concept of saliency of loss was also supported as description of the damage to the house from floodwater, the feeling of lack of support from local officials and negative impact from the event dominated the entire interview. Little comment was made to any gains participants felt they obtained as a result of the flood event although (as is discussed further in this section) Mr 1 did feel his prior experience of flood was a benefit to him.

Corollary 2 concerning the issue of a loss spiral in which loss begets loss and thus makes individuals more vulnerable in the future, was also supported. Participants discussed the concern that future floods may be uninsurable as flood insurance would either be too expensive or not available thus leaving residents at risk of more flooding without financial support (Case Study Interview, pp. 17 – 18). Also the impact of the floods not only had a direct effect upon residents but also the local economy as small shops and local services were disrupted with some closing indefinitely (Case Study Interview, pp. 12 – 13). Following damage to the house from floodwater, the participants Mr and Mrs 1 stated that further loss was experienced in the form of financial drain from running gas heaters all day and having to pay on average £50 more per week for food bills at local restaurants (Case Study Interview, pp. 4).

Support was also provided regarding Hobfoll's, 2001 theory '...that psychological stress will occur in one of three instances, when individuals' resources are threatened with loss, when individuals' resources are actually lost, or where individuals fail to gain sufficient resources following significant resource investment' (Hobfoll, 2001, pp. 341 – 342). Participants interviewed did experience resource loss both physically (as in damage to the house) or through lack of resources (with perceived little external support from official organisations) and a level of stress was experienced as a result as previously discussed.

The COR theory was deemed suitable to analyse participant data on the subject of post-flood situations as it allowed enough scope for issues to be raised independently of researcher questioning and many of the activities undertaken by participants lay within the broad categories. The participants discussed without prompt the subject of Object Resources, Condition Resources, Energy Resources and Personal Characteristics; it was only Social Support Resources that was raised by the researcher. This allowed the researcher to be satisfied that the COR theory was appropriate to this type of project, although certain issues did not directly fall within the five categories exactly (such as normality and emotional response) indicating perhaps some early limitations of the model for this research.

Other limitations included the fact that the COR categories appeared to be a little 'cut and dry' and not enough guidance as to what constitutes inclusion of an item into a certain category was provided by Hobfoll in the literature. Also there seemed to be a gap in the COR model as it did not appear to adequately cover the more subjective aspects of post disaster experience, the nuances of feeling, perception, emotion or thought.

3.1.3.3 Level Two Coding: Appraisal Analysis

In order to analyse the transcript fully, a second level of coding was needed which encompassed each individual's range of experiences within the flood event. This level of coding needed to address the subjective aspects of the disaster narration; the feelings, emotions, perceptions and thoughts as well as the use and role of resources.

Lazarus (2000) states that his cognitive-relational approach is 'the *relational meaning* that an individual constructs from the person-environment relationship' (Lazarus, 2000, pp. 665, italics in original). He defines it as '...the process of categorizing an encounter, and its various facets, with respect to its significance for well-being' (Lazarus and Folkman, 1984, pp. 31). Lazarus states that emotions are the result of how an individual perceives the relationship between a person and the environment and that this relationship can be actually occurring, imagined or anticipated (Lazarus, 1982).

Therefore according to Lazarus, cognitive appraisal of the situation precedes the emotion and it is through this appraisal process that an individual constructs their own sense of meaning and significance of the situation. Although as Gross (1992) states, 'Lazarus proposes that cognitive appraisal invariably precedes any affective reaction, although it does not have to involve any conscious processing' (Gross, 1992, pp. 150). Individuals then place this situation into a category but it is how this categorisation takes place, the activities or procedures that an individual goes through in order to 'appraise' a situation that are less well defined.

Lazarus and Folkman, 1984, state that this appraisal process occurs through two stages; Primary Appraisal and Secondary Appraisal, (pp. 31). Three kinds of primary appraisal are stated; '(1) irrelevant, (2) benign-positive, and (3) stressful' (Lazarus and Folkman, 1984, pp. 32). If the first occurs the individual will probably do little to counter the situation as they will perceive it as having no implication upon their well being (Lazarus and Folkman, 1984, pp. 32). If the second occurs they will view the event as ultimately positive and beneficial for them and will be pleasurable (Lazarus and Folkman, 1984, pp. 32). If the third occurs and the event is viewed as stressful, one of three appraisals can then occur; 'harm/loss, threat, and challenge' (Lazarus and Folkman, 1984, pp. 32).

The individual will then proceed with the course of action they deem most suitable or available at that stage in time – this is secondary appraisal (Lazarus and Folkman, 1984, pp. 35). At this stage individuals evaluate what the events and what coping options are available to them to effectively manage the situation to their desired outcome (Lazarus and Folkman, 1984, pp. 35).

Unfortunately, Lazarus and Folkman, 1984, do not give clear guidance on how the theory might be used as a framework for examining data, apart from within the Ways of Coping Questionnaire, which is not applicable for this research as it is not quantitative in nature. Therefore, for the purposes of the research the initial interview was analysed in line with the following the following categories;

Primary Appraisal – How does the interviewee discuss the event in terms of it being irrelevant, benign-positive or stressful to them?
Secondary Appraisal – If the event is viewed as stressful or negative in some way, is it regarded as harmful or loss making, threatening or a challenge?

If the situation is regarded as harmful or loss making, threatening or a challenge then a third level of analyses was employed to look at coping activities undertaken to deal with the outcome of the Secondary Appraisal.

At both of these stages careful consideration was given to the topics discussed and the language or non-verbal cues used which might indicate how participants appraised the situation to best understand which appraisal had occurred. This was especially important if the participant did not actually state 'I believe this situation was stressful/irrelevant' for example. In this case indications of stress were taken to be physical or emotional symptoms discussed or language used that conveyed indication of stress.

It was felt that because of the sensitive nature of the topic perhaps some participants would not feel comfortable discussing such personal issues and their levels of stress (if any) with a stranger so it was accepted that indication may be given via use of language. Such indications may be, 'tired all the time', 'stressed out', 'felt I couldn't cope', for example. In terms of emotional symptoms discussion during the interview, Cox (1978) states that the experience of stress can be described in terms of emotions such as depression, fear, anger, anxiety, guilt, grief, jealously or shame.

This list of emotions did not fit easily into any of the categories Hobfoll developed and left an amount of data that was related to how the individual felt, perceived or regarded a situation which did not fit within the COR model comfortably. It became clear that coding relating to the emotional impact of the flood situation and how it was appraised was required. Identification of an emotional response to the flood from the previous list by Cox (1978) would be beneficial to understanding the individuals' appraisal of the flood experience and any associated loss. Emotions were coded separately from the COR categories and indication sought within the wider text and discussion in hand, if they described a stressful appraisal of the situation, indicating primary appraisal had occurred.

If Primary Appraisal had been identified in the transcript and the participant felt the situation to be a stressful one, then indication of Secondary Appraisal was sought, in particular, if the individual regarded the situation as a loss making, threatening or challenging one. Here indication of what did individuals actually do to deal with the situation was required. If activities were described in terms of dealing with a situation regarded as a loss, threat or challenge, then a third level of analyses was employed, that of coping activities.

3.1.3.4 Conclusions of Appraisal Analysis

Following analysis using the COR categories, the interview data was reviewed on a second level using Lazarus and Folkman's appraisal theory. Here evidence supporting the process of primary and secondary appraisals undertaken by participants, as previously outlined

were sought to justify the use of this theory in the research to assist in comprehensive analysis of the data.

Primary Appraisal – Does the interviewee discuss the event in terms of it being irrelevant, benign-positive or stressful to them?

The participant Mr 1 was very aware of the damage his and other's property had sustained and the negative long-term effects the flood may have. He commented that some residents were thinking of renting their houses once repairs had been made or even selling up and moving away. He stated, '...quite a few that's said they won't come back or as soon as they come back they're going to try and sell but what point in selling, you're going to get nought for them anyway?' (Case Study Interview, pp. 4). He continues this theme towards the end of the interview by stating, 'You know, you couldn't give these houses away at the moment nobody would have 'em' (Case Study Interview, pp. 18). Indicating this is in no way a positive or irrelevant situation for the participants but a very real negative impact as a direct result of the flood.

Mr 1 was aware of the negative financial implications of the flood event for himself and others affected directly after the flood and in the longer term when he discussed the issue of flood re-insurance. All three participants discussed the issue of not being able to be insured against floods in the future and how they would cope, with Mrs 1 stating that she did not know how they would be able to repair their house following another flood if they could not get insurance, 'Don't know how we'd do it without anyway. We couldn't afford to pay it our selves' (Case Study Interview, pp. 18). This was of great concern as Mr 1 stated that some residents had already been refused re-insurance nine weeks after the flood (Case Study Interview, Page 17).

The flood had a direct impact on Mr and Mrs 1's home and as such they took steps to relieve the situation to the best of their ability at the time and because they deemed action necessary. Nine weeks after the flood Mr 1 was discussing having builders in and the need for waiting for the house to dry out before any repair work can begin, (Case Study Interview, pp. 3), the cost of having gas heaters running all day because the house is so cold and having to eat out because they have no kitchen to cook in (Case Study Interview, pp. 3 – 4) and attending public meetings to discuss residents grievances with officials regarding the flood (Case Study Interview, pp. 5). Participants invested time, money and resources into alleviating the situation hence the event was not perceived as irrelevant.

The only positive aspects within the flood event according to Mr 1 were the local radio coverage of events and the manner in which participants felt they were treated by visiting press (Case Study Interview, pp. 9 – 10). Mr 1 did acknowledge that prior experience of flood events may be a possible positive aspect of the situation. He stated that because he had prior knowledge he therefore knew what he must do to rectify the situation and how best to proceed in the aftermath, '...we all knew right, your first step is your insurance, then your assessors and your builders and you know, we sort of knew. But if, if it hadn't happened the first time and there was nobody here this time, there would have been people, not...no idea what to do you know. So it was, it prepared us first time prepared everybody and it give 'em an idea sort of how to carry on' he then continued '...which helped with the

second flood' before concluding 'So I don't know if it were a good or a bad thing!' (Case Study Interview, pp. 12).

However, for the remainder of the interview Mr 1 discusses the negative impact the flood had on him, his wife, their home and the wider community so it can be taken that overall this event was not perceived to be in any way beneficial although there may have been some positive aspects throughout. Even to Mrs 2, who was not directly flooded but suffered inconvenience because of the event, the flood was not a positive situation to be in as she was out of work for several days because she was unable to travel to work, she had to make alternative shopping and postal arrangements and she described the whole situation as, '...an absolute nuisance really...' (Case Study Interview, pp. 14).

Mr 1 did not state directly that he was under stress but when asked if the flood was a strain on him personally he replied, 'It's...not me, its not...because I live under stress cause the wife's ill....and I work quite well under stress...' (Case Study Interview, pp. 4). Indicating that prior to the flood he was experiencing a certain amount of stress already due to illness but his wife later clarified that she found the event stressful. When discussing the issue of her pets she stated that she was deeply concerned about the welfare of one of the dogs that had run away on her choke chain during the flood. Mrs 1 said, '...I was more concerned that she had hung herself you see?...cause if I'd have found her hung I'd have done my nut...So that really stressed me out and all, which we didn't really need...' (Case Study Interview, pp. 17).

Perhaps the most direct indication of how stressful the situation was for the Mr 1 was when he discussed the use of humour as a coping mechanism. When asked if he had to have a sense of humour during the flood he replied, 'Oh yes, yes, you had to. If you didn't you'd crack up' (Case Study Interview, pp. 7). Here indicating a level of emotional or personal strain he was experiencing and the need to relieve the situation in some way. In this case it was posing for a photograph in his fishing outfit whilst sitting on his wall surrounded by water. He stated that after fourteen days of water he had to do something (Case study Interview, pp. 7).

When asked if the thought of more rain worried him he replied, 'It does actually yeah, but if it starts raining and it's raining sort of half a day, first thing next morning you're up and down the river to see if its coming up or going down or what its doing, you know, just, just in case?' (Case Study Interview, pp. 8). This indicates a level of concern over possible future occurrences and a need to watch the situation closely which is not typical of an individual who perceives circumstances to be irrelevant or positive rather one who is worried about negative impact.

Therefore it can be taken that the flood event was stressful to some degree for all participants interviewed, regardless of the level of impact they experienced (be it direct flooding or secondary inconvenience) and the possible future consequences of the flood. All had to take counter measures to alleviate the flood effects and not one described the situation as irrelevant or positive overall.

Secondary Appraisal – If the event is viewed as stressful or negative in some way, is it regarded as harmful or loss making, threatening or a challenge?

Following Primary Appraisal in which participants indicated a level stress associated with the event, indication of a Secondary Appraisal was sought. It seems that Secondary Appraisal does not necessarily involve one outcome as is indicated in the Primary Appraisal in which the situation is regarded as irrelevant, benign-positive or stressful. Analysis of this interview suggests that the Secondary Appraisal can have one or all three options as a possible outcome.

Mr 1 regarded the situation as a challenge to some extent. When he discussed the issue of residents moving out of the street after the flood he and his wife elected to stay. He stated that everyone had left the area within three days of the flood but that they would live in their house as, '...we stayed in last time, we stayed in this time' (Case Study Interview, pp. 2).

The event was also a loss-making situation for Mr and Mrs 1 but not for Mrs 2 who was not directly flooded. Mr and Mrs 1 described the loss of their aviary and birds (a particularly distressing situation for Mrs 1 which was discussed off tape at the end of the interview). Mr 1 did discuss the financial drain resulting from the floods (discussed previously) but did not report anything else that was lost as a direct result of the floods apart from a carpet (Case Study Interview, pp. 2).

However it is the personal view of the researcher that the participants did indeed lose a lot more than was discussed on tape. Upon entering their home immediately it was clear that extensive damage had occurred to the house. All plasterwork, flooring and electrics were stripped out and the bottom floor of the house resembled a building site as dehumidifiers operated at full speed (and high noise levels) to dry out the walls. Walking on the ground floor was a difficult act as floorboards were removed and a few planks of wood lay on the main traverse route to and from the front door. The kitchen was unusable as many of the cupboards were removed and appliances had been covered in floodwater rendering them useless. The ground floor was cold, damp and uninhabitable with all living and dining room furniture and personal effects relocated upstairs to bedrooms making the first floor crowded and difficult to move around in. The loss of normal living conditions was clearly evident to the researcher.

Finally, the flood event had secondary implications for safety for the participants. Mr 1 discussed the issue of trying to keep a sense of normality in his routine, in one case walking up to the pub for a drink and stated that '...you didn't really want to be out of a night, its dangerous, you didn't know if there were any drains off or anything' (Case Study Interview, pp. 2). Here there is clear indication that there were hazards associated with the flood, which were regarded as a threat to personal safety. He also continued with the issue of threat to personal safety when he discussed, with Mrs 2, the alternative transportation that was set up for residents to travel across town. A local tractor owner operated a service allowing residents to travel from the flooded area up to the shops that were above the floodwater but after a period of time this was stopped as the water was just too deep to allow travel (Case Study Interview, pp. 2).

Evidence of stress emotions such as anger and anxiety were also evident within the interview. When asked what annoyed him, he replied, 'Well, the only thing that really annoys me is that if it starts raining and we're out somewhere and people say 'You'll flood again... Quite cheerfully and you think well, if you actually got flooded you'd realise its not as funny as you make it seem. A little bit of rain comes down and they all say, 'You'll get flooded again.' cheerfully and you think, 'I could just do with you getting flooded just once and then you'd know about it'' (Case Study Interview, pp. 8). Anxiety regarding the rising water level and if it would enter the house (Case Study Interview, pp. 1) the thought of the dog which ran away having hung itself on its choke chain (Case Study Interview, pp. 17) and possibility of another flood event (Case Study Interview, pp. 8) were also evident.

Analysis using the cognitive-appraisal theory as a framework was supported by the data. Primary and Secondary Appraisals did occur although as direct questioning on these issues was not used in the interview, the analysis was slightly difficult. This was due to less obvious indication of appraisals rather than direct confirmation of response to a question concerning both levels of appraisal. However, the data did support the use of the cognitive-relational model as a useful and appropriate theory to analyse the data in conjunction with Hobfoll's COR theory to comprehensively understand the flood experience from the participant's perspective.

3.1.3.5 Level Three Coding: Coping Analysis

Finally, the transcript was then analysed within the broad definitions of problem solving-focused coping activities, emotion-focused activities and disengagement-focused activities as per Freedy, Shaw, Jarrell and Masters, 1992 and Smith's 1996 distinctions. The aim of this level of analysis was to ascertain if the general coping definitions were appropriate for use with both models and that coping activities were an important feature of the flood experience of individuals concerned.

The purpose of the initial interview was to assess if such coping activities were typically occurring and how participants described them. It was unclear as to how, if at all, coping methods would or could be relayed to allow the researcher to analyse data and if coping activities undertaken could be clearly distinguished from each other throughout such a complex situation as a flood disaster. Would the participants be able to delineate each action, activity or non-activity clearly in the retelling of their story or would the narration of the event blend into a sequence of interconnected activities? If there were clear distinctions between coping activities then it was decided that it may be possible to actually attribute a specific resource loss to coping activity undertaken to assess if a pattern exists. However as the initial interview was totally unstructured there was concern that this analysis process may face added complications due to no direct questioning on the matter.

Indication of the following activities was sought to clarify if these definitions were appropriate for use in the research,

Problem-Focused: types of activities typically seen include 'confronting a problem directly and attempting to change the stressor' (Smith, 1996, pp. 226) and 'planning, active coping, suppression of competing activities, and acceptance' (Freedy et al, 1992, pp. 448).

Emotion-Focused: types of activities typically seen include 'regulating the emotions caused by the stressor without trying to change it' (Smith, 1996, pp. 226 – 227) and 'seeking emotional support, religion, and humor' (Freedy et al, 1992, pp. 448).

Disengagement-Focused: types of activities typically seen include 'behavioral disengagement, denial, alcohol/drug use, and mental disengagement' (Freedy et al, 1992, pp. 448).

Problem solving was action oriented with Mr 1 making a concerted effort to rectify practical problems such as moving items out of the way of water, disinfecting the house or sandbagging around the house to prevent water entering (Case Study Interview, pp. 1 – 3 Attempts to change the stressor were reactive and involved entering into discussion with officials, making them aware of the residents concerns and trying to ascertain if anything would be done about the flood situation in preparation for future occurrences (Case Study Interview, pp. 5).

Suppression of competing activities was evident as Mr 1, with others, assisted neighbours in moving items up out of the way of the water and keeping and eye on elderly neighbours (Case Study Interview, pp. 3). Mr 1 went round to neighbours asking if they required assistance lifting heavy items and he with others 'banded together' and concentrated on one house until it was complete (Case Study Interview, pp. 3).

Acceptance of another flood occurring was also discussed. When Mr 1 was asked, 'How do you feel about the possibility of more flooding?' he replied, 'Well...I can see it happening again, but I'm not very happy about it happening again, but until there's something done you can expect it' (Case Study Interview, pp. 6).

Mr 1 also gave indication of planning activities when he described how he had to forward plan the act of buying his lunch from the local and fish and chip shop. A journey that would normally take him a few minutes he estimated at the height of the flood took him forty-five minutes and involved him setting off at 11.15am to get to the shop for 12pm to order his lunch (Case Study interview, pp. 15 – 16).

Emotional responses were more subtly alluded to throughout the interview. Mr 1 commented on his use of humour used to handle one of the more taxing times (Case Study Interview, pp. 8) an activity that did not directly change the flood in any way but perhaps allowed him to relieve the tension associated with dealing with the event. Mr 1 also commented on others marriage being under strain with some couples either breaking up or relocating as the strain was too much for them (Case Study Interview, pp. 6).

Religion was perhaps a coping resource for some people but not directly used by any of the participants interviewed at this stage. Reference was made to the local Reverend who was trying to establish a disaster response team to be used in future floods but discussion of this was more in a problem-solving capacity of provision of assistance to move items rather than pastoral care (Case Study Interview, pp.13).

Disengagement activities were not directly used by the participants interviewed except for a short reference to denial at the start of the interview. When asked 'How did the flood start?' Mr 1 stated that the water, '...just kept coming and coming and we thought well, it might come up it might not' (Case Study Interview, pp. 1). This was quickly replaced by the previously discussed activities of moving items out of the way of the water. Mr 1 did allude to neighbours who appeared to demonstrate examples of disengagement coping with couples moving away from the area with no intention to return because they state they do not '...want to be living on a knife's edge' (Case Study Interview, pp. 6).

There was no direct evidence of alcohol/drug abuse, or of mental disengagement regarding the situation by any of the participants interviewed indicating either that the category of analysis was not appropriate to investigating flood experience or further more in-depth, investigation was required.

3.1.3.6 Conclusions of Coping Analysis

Problem-solving and emotion-focused coping activities were clearly evident. However there was little evidence in the case study work of disengagement coping undertaken which did not necessarily mean that the definition was not appropriate for use, rather there may have been other factors not identified affecting the decision to employ this type of coping. This may have been due to the broad definitions used for identification of coping activities used to analyse the transcript. The appropriateness of the coping definitions specified was, in part, supported by the data collected via the case study interview. Further investigation of this would confirm or deny the use of these coping definitions but the researcher felt that expanding the coping definitions to give clearer indication of specific activities may assist in the analysis of data.

It is the personal belief of this researcher that Mr 1 in particular came across as a very capable and motivated individual who was keen to 'get on' and sort the problem out. Mrs 1 was quieter and frail due to illness, appearing slightly nervous throughout the interview and did not discuss her own methods of coping readily. As previously discussed, a separate interview with her may have provided a different perspective. Unfortunately Mrs 1 declined the offer of a second personal interview on grounds of ill health so the researcher was unable to establish if she did indeed have a different coping perspective on the event.

3.1.4 Conclusions

After Level One Coding (Resources) was finished it was clear that although the category codes for the COR model were suitable to assess initial research issues such as applicability of the model and relevancy of the categories, the codes were not all encompassing or clear enough for use at the next stage. It was decided that before any data was given to a second coder for triangulation purposes the codes needed to be defined in clearer terms.

Following review of both the interview and Hobfoll's resources categories as they were originally defined (Hobfoll, 1989), the following reviews were made. The original coding is listed first and the revised coding follows and is placed in bold typeface for ease of identification. Each amended definition still follows the original definition supplied by Hobfoll (1989, 1998) but allows for ease of analysis of interview data by providing clear examples of what might typically be included in each resource category.

OBJECT RESOURCES – Valued because of some aspect of their physical nature or because of their acquiring secondary status based on their rarity and expense. Examples of object resources are a house, a car or personal possessions

Items or objects valued because of their physical nature and/or hold secondary status because they are rare or expensive. Examples: house, car or jewellery.

CONDITION RESOURCES - Resources to the extent that they are valued and sought after and that they provide a secure foundation to access other resources – i.e. marriage, health, tenure or seniority.

Situations or circumstances in the individual's life valued because they are sought after and/or provide secure foundation to access other resources. Examples: health, seniority at work, normality or marriage.

PERSONAL CHARACTERISTIC RESOURCES - 'Resources to the extent that they generally aid stress resistance' (Hobfoll, 1989, pp. 517). Previous research by Hobfoll (1985) suggests that many personal traits and skills that aid stress resistance. These are internal skills and abilities that are inherent or trait-like within the individual, such as optimism, confidence, dedication or an analytical mind.

Traits, skills, and/or abilities inherent in the individual that are valued because they are internal resources. Examples: optimism, confidence or analytic mind.

ENERGY RESOURCES - Valued as to how they aid the acquisition of other kinds of resources via exchange. These types of resources '...can be invested or retained in order to enhance acquisition, protect against resource loss, or combat loss cycles once they begin'(Hobfoll, 1998, pp. 59). Examples include time, money, credit or knowledge.

Tangible or intangible resources that may be valued in their own right but also have secondary value in that they can be used to aid acquisition of other resources via exchange. These types of resources can be invested or retained in order to enhance attainment of other resources, to protect against resource loss or combat a loss once it has occurred. Examples: time, money or knowledge.

SOCIAL SUPPORT RESOURCES - It is a resource to the extent that it provides or facilitates the preservation of valued resources but can also detract from individual's resources (Hobfoll, 1989, pp. 517). In addition social supports effect seems to hinge on its value in promoting or supporting a positive sense of self and a view that one can master or at least see through stressful circumstances (Hobfoll, 1989, pp. pp. 517). Such support can come from family, friends or the wider community whether personal ties exist or not (such as the local authority response to disaster stricken residents).

Assistance from social circle that may facilitate preservation of valued resources or actually detracts from them by being perceived as ineffective or detrimental in some way. Such support can come from family, friends or the wider community whether personal ties exist or not. Examples: family, local authority or neighbours.

The use of the COR model was confirmed as appropriate and relevant to the research as several of the key concepts and principles agreed with the data collected. The use of Lazarus and Folkman's Cognitive-Appraisal theory was also deemed appropriate because it could be used in conjunction with Hobfoll's COR theory and accounted for the more subjective aspects of the flood experience as narrated by participants.

Further testing of the core theories and definitions was required to ensure that these early findings were accurate and with a larger group of people. Therefore it was decided that the next stage of the research would involve the use of focus groups to examine the following issues. Firstly, further confirmation that Hobfoll's COR model (1989, 1998) and Lazarus and Folkman's Cognitive-Appraisal theory (1984) was indeed appropriate for use in a flood context and with a larger group of participants.

Secondly, evidence of Primary and Secondary Appraisal within a larger group of participants was required to ensure that findings from the case study stage of the research were substantiated as well as testing the revised COR resources definitions for use in coding and analysis of data obtained and to ensure that no further revisions were necessary. Also, coping activities required closer inspection. In particular, further examples of all three coping mechanisms – problem and emotion focused and disengagement – were required to validate their use within the research as some methods of coping, in particular disengagement coping, was not evident at this time.

4.0 Study One: Focus Groups

4.1 Introduction

This section will focus on Study One – the Focus Groups. Discussion regarding the focus groups aims and objectives and the methodology used at this stage is included. The process of actually facilitating the groups, the participants and their interaction, interviewer's impact and ethical considerations are also all examined before the analysis of the transcriptions using previous coding defined, that of Hobfoll's COR model (1989, 1998), Lazarus and Folkman's Cognitive-Appraisal Theory (1984) and the coping categorisations as per Freedy, Shaw, Jarrell and Masters, 1992 and Smith's, 1996 distinctions. The use of a short follow-up questionnaire to investigate the participant's experience of objective and subjective loss is discussed and findings presented in Appendix B.

Focus groups have been used in research as an early exploratory method in order to obtain background information about the topic in hand, generation of hypotheses, 'brain-storming' of ideas and learning how potential respondents talk about the issues of interest (Stewart and Shamdasani, 1990). As the researcher did not fully understand the local community dynamics or individual issues, it was decided that the opportunities that focus groups could provide would be invaluable, such as release of inhibitions, widening the range of responses as compared to a questionnaire and activating forgotten details (Merton, Fiske and Kendall, 1990, pp. 141 – 147). In this setting, social processes such as interaction and conversation regarding a common theme can be useful in generating data about the issue with the researcher providing prompts as necessary.

Following the guidance of Merton, Fiske and Kendall (1990) careful attention was given to the size of the group, the spatial arrangements at the location and the composition, (Merton, Fiske and Kendall, 1990). Although the authors suggest a group size of ten to twelve persons as optimal for focus group work, the sensitivity of the subject matter dictated that a smaller group size was preferable. These smaller groups were also required to ensure transcription of conversations would be exact and not unclear due to many people talking at once. The groups were single sex to allow for any disparity that may arise in discussion due to gender differences.

The composition of the groups was relatively homogeneous in that all persons had been directly affected by the flood event, groups were single sex only and there was a level of acquaintance between participants prior to the group work. Merton et al (1990) suggest that homogeneity within the focus group results in more productive discussion. The authors also suggest that a circular, or semi-circular if the room does not permit, spatial arrangement is preferable and more conducive to discussion (Merton, Fiske and Kendall, 1990, pp. 139). Therefore, all chairs were arranged in a semi-circular arrangement with ample space between participants.

Disadvantages of focus group work can include irrelevancies brought up in conversation (such as participants responding to each others comments rather than the issue in hand), the

'leader effect' (Merton et al, 1990, pp. 148) whereby one person seems to dominate the discussion at the detriment to the others participation or interruptions in continuity (Merton, Fiske and Kendall, 1990). In this latter case, participants may override each other in their eagerness to make a comment. One final disadvantage identified by Merton et al, 1990, is the inhibiting effect the actual group may have upon any one individual. In this case participants may feel reluctant to discuss their views, defer to more vocal members of the group or become selective in what issues they discuss in front of others. In order to address these potential problems the researcher ensured that the groups were conducted with careful attention to equal participation by all, sensitivity and a non-judgemental attitude.

However, the researcher also had to acknowledge that she was operating in a less than optimal situation, due to many residents unavailable because of housing circumstances, lack of will to participate or other more pressing obligations resulting from the flood. It was hoped that this focus group work would highlight immediate post-flood needs and issues, which could then be discussed at the next stage with the Northamptonshire residents who were flood affected over three and a half years ago in 1998.

4.1.1 Aims and Objectives

The aim of these focus groups was to test types and content of questions developed following the previous case study interview, identify emergent themes and check for reoccurring issues from the previous case study with a view to use in subsequent interviews. The objectives of this study were to answer the following questions:

Did loss occur as a result of the flooding?
This was to examine if any losses discussed fit within the COR categories outlined by Hobfoll, 1989 and if they were also encompassed by the revised resources categories stated in Chapter Three.

Did Primary and Secondary Appraisal occur?
This was to understand if Lazarus and Folkman's Cognitive-Relational Theory (1984) was indeed appropriate for use in the research as previously discussed and if revision of coding was appropriate.

What form did this loss take?
This question hoped to explore the types of loss experienced and then investigate if loss existed in physical and subjective forms. This was to assist in understanding if the types of loss specified fit within the COR categories and if there were some that did not fit the model as it existed. Hence, was investigating objective and subjective loss a valid research objective? However direct questioning on subjective loss was not asked at this stage because the researcher was unclear as to how this concept might be best investigated without leading participants in her questioning. The decision was made to keep a record of any subjective themes, which arose during the focus groups that would be examined and tested for suitability at the next stage of the research.

How did residents cope with this loss?

This was to establish if coping activities undertaken fell within the three broad coping classifications previously discussed. If these broad definitions of coping were supported, further refinement of coping codes would be necessary.

What was of key importance to affected residents?
This was a check inserted by the researcher to ensure that subsequent questioning was as relevant as possible. Indication here was sought on whether the questions asked prompted much discussion or if they were not relevant to participants. Also a final question 'Is there anything else you feel I need to know about the flood or your experience of it?' was added to ensure that participants were given opportunity to raise any topics not previously covered.

4.1.2 Focus Group Questions

In order to tackle these objectives, broad topics/questions were developed, some of which were discarded as the interview progressed as they were not relevant to the participants, some were naturally raised by participants themselves during the course of discussion and some were prompted by the researcher. The question sheet covered all the topics relevant to the overall research aim such as COR categories, appraisal processes, emotions and coping methods employed.

This list (See Appendix B for list and background to their inclusion) was developed to ensure that if participants were not naturally 'talkative', then the researcher could raise some issues to keep the conversation flowing within previously specified research criteria. Each question was developed inline with literature available and based upon findings from the case study interview to tackle specific issues relevant to the research. Further revising of these questions would be completed after their initial relevance had been assessed within the focus groups.

4.1.3 The Participants

At the end of the first interview Mr 1 stated that he had a contact that was active in a residents association, a pressure group that had been established following the flood of March 1999. After obtaining her name and contact details, the researcher phoned and explained the research topic and requested help in this. Ms. D was extremely helpful and enthusiastic and offered to ask her association colleagues at their next general meeting, if anyone would like to participate in the focus group interviews. Several names were supplied. The fact that it was a third party who was known to them and respected within the community that was inviting the participants helped enormously in the recruitment stage. After being assured that the names and contact details the researcher was given were from individuals interested in participating of their own free will, she proceeded to contact each one by telephone.

This approach is common of convenience sampling, which saves both time and money at this early stage of the research. The researcher felt that the limitations this technique could cause, such as biased information from a small sub-group of the population, would be balanced out by other advantages. Advantages such as collection of data quickly, relatively low costs, opportunity to obtain responses in participant's own words and the chance for further clarification if needed during the interview. Also previous experience demonstrated

that a community contact was vital to securing more participants, as many people were wary or uninterested in the researcher 'cold-calling'.

The researcher was interested in establishing what the views of the local people who had been flooded during the Autumn 2000 floods were and that those who expressed interested in participating, were representative of the wider population. From initial investigation and informal conversation with locals, it appeared that the majority of the two towns of Malton and Norton-on-Derwent had been flooded and those whose property was not directly flooded, did experience inconvenience. Therefore, the focus groups composition reflected this and a mixture of directly and indirectly affected persons were recruited.

Ms. D stated during telephone call prior to the recruitment drive that as the Ryedale area was predominately rural, the women may be more interested in participating than the men, due to the nature of the community dynamics and how women in this area interact. Therefore it was felt that as male and female respondents could have different perspectives and priorities on the flood and its aftermath, having both single sex and mixed groups would be the best choice. Ms D's assistance in this resulted in enough participants for three focus groups, one all male, one all female and one of mixed gender, each comprised of four persons plus the researcher. Unfortunately before the interviews were finalised, the mixed focus group had to be cancelled due to unforeseen circumstances for two of the participants and could not be rearranged.

4.1.4 The Interview Procedure

The interviews were conducted at a local hotel well known to everyone in Malton, North Yorkshire, with the first group scheduled for 9.30-11.30am and the second group at 12.30-2.30pm, both on Saturday the 24th February 2001. This place, time and date were agreed upon by the participants contacted and allowances were made for those who worked Saturday's. As such, the female participants felt the morning would be more suitable for them, whereas the lunchtime slot was more agreeable to the gentlemen, some of whom were self-employed. Refreshments were provided for both groups, with sandwiches made available to those attending the lunchtime session as a point of courtesy.

Each participant was asked to arrive about 15 minutes prior to the start of the interview to allow for latecomers and time to have a cup of tea or coffee. The researcher allowed this extra time so that participants felt less 'rushed' or nervous once the discussion began. At the start of the session, each group was reminded of what they were there for, asked if they had any questions and thanked for their time. In each case, the participants sat around a low coffee table and the seating was such that each had space from their 'neighbour' but no one was physically isolated from the group as a whole. All were encouraged to speak clearly and if at all possible not over another person, to allow for clarity of comment on the tape. Each group was asked the same questions, which the participants themselves sometimes initiated as opposed to raised by the researcher.

The researcher encouraged free conversation, mainly directed by the participants and occasionally steered into certain areas if a topic came up or if the conversation faltered. This ensured that the issues most pertinent to the participants were covered and if raised by them, were less emotionally distressing than if the researcher raised them with no warning.

Group dynamics allowed individuals to debate issues between themselves, which highlighted other issues not necessarily evident to the researcher.

Focus Group One – all female – comprised of Ms. W, Ms. X, Ms. Y and Ms. Z. Focus Group Two – all male – comprised of Mr. A, Mr. B, Mr. C and Mr. D. Each session lasted approximately two hours on-tape, with a little off-tape discussion before and afterwards.

4.1.5 The Interviewer

The researcher made a conscious effort attend these interviews in smart clothing and with a neat and tidy appearance to appear professional. She also engaged in light-hearted conversation with several of the participants before taping, which helped create a less tense and more trusting atmosphere when the sessions began. Although she established a good working rapport with both groups, the researcher felt that the more intimate or personal comments came from the all-female group. Perhaps this was due to the fact that as a woman asking questions to other women, she appeared less threatening to them or more empathic to their situation.

Both interview groups were conducted on the same day and the researcher feels this was, in retrospect, not a good idea. Although informative data were collected from both groups, the researcher felt tired and slightly drained of energy by the second half of the second focus group (all male). This may have adversely affected the interview process and data collection and the researcher would suggest that any focus groups be conducted on separate days so as to be as alert and responsive as possible. However, following detailed analysis of the data collected there was no apparent threat to the standard of data collected so this apprehension was unfounded. Although the interviews were conducted in a semi-structured manner, the researcher did not have to raise many of the issues on her question sheet as comments on these topics were often readily volunteered.

The initial interview was shorter than expected, which identified the need to adapt the interview style to suit the circumstances a little more effectively and to take into consideration the level of responsiveness from each participant in the focus groups. The interview procedure with male participants was amended as it was found that by asking more specific questions, more information was given as opposed to with female participants whereby general open-ended questions elicited fuller answers. Where general, open-ended questions were asked of male participants, less information was forthcoming. This may have been a gender difference, but in the opinion of this researcher it seemed that women were happier to be allowed to talk freely without few questions interrupting their 'flow' of talk. They would discuss each relevant issue in their own time, whereas the male participants were more willing to divulge their opinion in response to a direct question.

4.1.6 Ethical Considerations

Each participant, who had expressed interest in assisting in the research, was telephoned first and told about the nature of the research and asked if they would like to participate. All were told the same information: that the researcher was a PhD student at Cranfield University, Bedfordshire who was investigating the impact of the Autumn 2000 floods upon the residents of Malton and Norton-on-Derwent. The two towns had been chosen due to the extensive damage they experienced as a direct result of the floodwaters. The

researcher was interested in the impact this flood had on residents and how they coped during and after the event and wondered if they were interested in discussing this at a group session.

All were asked if they objected to the interview being taped and notes taken throughout the interview. Each participant was also advised that once the interview had begun, his or her comments could not be taken out of the final transcript. They were also advised that they could withdraw at any stage. Anonymity and complete confidentiality was promised at all stages of their participation. All agreed to this. Each participant was then sent a letter giving him or her confirmation of their acceptance to participate, what this would mean and a note of personal thanks from the researcher for their assistance. A follow up letter was sent out shortly afterwards as a gesture of goodwill and appreciation from the researcher expressing thanks for their time and interest in the research.

4.1.7 Group Dynamics

Focus Group One began quite cautiously, which the researcher attributed to the topic in hand being very fresh in people's minds, but also perhaps a slight wariness on the part of participants to the researcher and her intentions. Two members were distinctly quieter than the others, necessitating intervention by the researcher in form of, 'And was that the same for you?' after a previous comment to encourage discussion. As the interview progressed the participants became much more enthusiastic and forthcoming with information, anecdotes and opinions and this intervention was no longer necessary. Participants frequently nodded their heads, smiled or expressed non-verbal signs of agreement, often looking at others present for support or accord.

The all-female group seemed to begin discussion on the more sensitive aspects of the flood rather more quickly than the all-male group did who seemed to be more cautious and were less willing to discuss the personal aspects of the flood until the researcher gave gentle prompts. At the end of the all-female group interview several of the women approached the researcher before she left and thanked her for being able to talk about their experiences of the floods. Many found it to be cathartic, which was not something the researcher expected. Also there was much conversation off-tape regarding the marital and more emotional aspects of the floods which gave the researcher the indication that some topics, however good the mutual rapport between interviewer and participant, would not be discussed on tape.

In focus group two, the all-male interview, less discussion centred on the emotional impact the floods had on each individual present. Much discussion focused on the practical activities involved in dealing with the flood and its impact as well as the knowledge many had regarding the event. The researcher was of the opinion that the second focus group were less sure about discussing the flood with a relative stranger and she believes this may have adversely affected the depth of comment received on some subjects.

4.2 Focus Group One

The focus group data was analysed on three levels, Hobfoll's Conservation of Resources (1989, 1990) model categories, Lazarus and Folkman's 1984 appraisal theory and three coping categories as defined by Freedy, Shaw, Jarrell and Masters, 1992 and Smith 1996.

4.2.1 Level One Coding – Resources Analysis

Starting with the question, 'How did the flood actually start?' gave the participant's scope to direct the interview as they wanted. Almost immediately one participant described the feeling of inevitability of the situation. Ms X - 'And then we watched the water coming up...and it was horrible because you know what is coming and you can't do anything about it.' (Focus Group One, pp. 1).

This participants' comment of watching the inevitable and not having the power to change it was also further compounded by her feeling of helplessness due to perceived inadequacies of those in a position to help her help herself. Here, indication is given that there was a lack of resources to assist residents in physically protecting their house. This not only means that there were reduced resources to help offset loss but also a reduction in the available coping methods that residents could use to deal with the situation. Ms X – 'We weren't given any protection at all...only...a few sandbags around our houses. You know, around the air-bricks or whatever but nothing else. There was nothing else...' (Focus Group One, pp. 1).

Continuing, Ms X raised concern over the lack of assistance she felt she received from anyone to protect her house this includes the army, Floodline help-line service or the media who covered the event. Ms X – 'Well we had Floodline didn't we? But I mean...as I say the army went into York, they went into Selby that was after we flooded...we had the media when it flooded, but as soon as York was flooded, that was taken away from us.' (Focus Group One, pp. 1). Not all resources were perceived as inadequate. The fire brigade was seen as a resource as they helped pump out water and protect property and it seems that Ms Z welcomed this help and the effort that the firemen put in (Focus Group One, pp. 1).

Ms X's comments have a two-fold interest. Firstly, the perceived availability and or visibility of resources may play an important factor in the ability of an affected resident to help themselves. As Ms X continues, Ms X – '...actually we were just left helpless, that's all I can say. We were absolutely helpless...' (Focus Group One, pp. 1). This may be taken as a slight exaggeration as authorities and services were in place to help (evident by others discussion of the fire brigade, police and local authorities activities at this time) but perhaps not to the standard this participant required.

Hobfoll contends that when loss occurs, '...individuals may employ other resources to offset net loss' (Hobfoll, 1989, pp. 518). Certain resources in the post-flood period, such as the army, Floodline (the Environment Agency help-line) or the media were activated and available without any effort from the residents themselves. However, these were not for the exclusive use of the residents of Malton and Norton-on-Derwent and were diverted when another area required them, thus limiting their usefulness.

Secondly, the fact residents felt that not enough physically was done for them raises the issue of a lack of resources to cope efficiently and effectively with the situation, that there was a real lack of resources rather than a perceived one. Personal resources were lost due to flood exposure (due to water on the property) but other resources that could be used to deal with this loss, assistance from authorities or 'others', were simply not available or were inadequate. This reconfirms Hobfoll's (1989) assertion that a spiral of loss can occur if adequate resources to offset loss are not available. However it raises the issue of if a spiral of loss can occur regardless of whether it is a perceived or actual lack of resources affecting loss limitation activities. It may be suggested that this distinction is perhaps not necessary as the effect is the same, a loss spiral can occur – whether the lack of resources is imagined or real although there is insufficient data to dispute or support this theory at this time.

Other resources, like the use of the tractor (Focus Group One, pp. 3) driving between the between the two towns to aid residents, were readily available but were a cause of resource depletion for some rather than resource protection. The tractor was provided by a resident as a means for local people to continuing some semblance of their daily routine. But for some the wash created by the tractor caused more floodwater to seep into their houses and damage property.

Ms Z commented that some people were not flooded until the tractor had gone past their house causing a wave of water to flood their homes, Ms Z – You see every time that tractor went across, no matter how slow it went it brought the water further up. Ms W – It did, it brought the water up, a lot of wash didn't it? Ms Z – And it even, even neighbours further down, the ones in the little houses, she come and said to the tractor man, 'Look every time you come back over here, you make waves and it is...I wouldn't have been flooded if you hadn't of made the waves' (Focus Group One, pp. 4).

The tractor was also not viewed as a resource by these participants for another less obvious reason than the physical damage it caused. Ms W and Ms Z both commented on how the resource of a tractor, whilst not useful to them was providing a means of transport for others but one that also caused further losses. It seems that some locals were using the tractor as a source of entertainment, that they were riding in the tractor to go view flood affected properties. Ms W – 'There weren't people just on it for getting from A to B, were they? They were some people on it...' Ms Z – 'Just joyriding, yeah'. Ms W – 'Just joyriding really'. (This elicits loud agreement from other participants). Ms Z – There were, they were just joyriding. Ms W – 'I mean to be quite honest, I know it was helpful to people, this tractor service, I would have preferred if they hadn't had one' (Focus Group One, pp. 4).

Other participants quickly joined in the discussion and told their stories of how the water affected their property, be it house (Focus Group One, pp. 2) or business (Focus Group One, pp. 2). Damage to floorboards (Focus Group One, pp. 2) and carpets on the ground floor (Focus Group One, pp. 2), furniture not moved upstairs or out of the path of the water (Focus Group One, pp. 33) and gardens (Focus Group One, pp. 1) were all losses mentioned. These are all object resources as they are items that had physical value to the owner. All of these items also cost considerable sums of money to replace or repair if damaged, so their loss was felt acutely.

It was not just the actual loss of object resources that was discussed but also the potential damage and loss that the floodwater could bring to these types of resources. Cars were talked about as being potentially flood-affected and having to be moved to somewhere safer (Focus Group One, pp. 7), which for one participant was of particular concern as she and her husband own a garage and this was their livelihood they had to protect. Here the secondary level of value is evident as the cars are valuable as items in their own right, but also are a means of income for the participants and hence their loss would have a double impact.

Another participant, Ms Z, talked about moving the stock in her shop out of the way of the floodwater (Focus Group One, pp. 7) and still another, Ms W, discussed moving ornaments, cushions and small loose objects away upstairs (Focus Group One, pp. 7).

Interestingly the topic of pets once again was mentioned. In the Case study Interview Mrs 1 was very keen to discuss her dogs and their reactions to the floods as well as the birds they kept (Case study Interview, pp. 16 and off-tape comments). Ms X and Ms Z also discussed the effects of the floods on their pets. Ms X talks about the morning she went down into her lounge and carried her elderly dog onto a dry patch of carpet. The dog immediately began drinking from the dirty water, which was still in pools around the dry patch. She stated that this was, 'the straw that broke the camels back' (Focus Group One, pp. 21). Ms X placed the dog in someone else's care until Christmas because she could not cope with a dog as large as that in her small flat.

Ms Z also commented that a lot of people had been parted from their pets, as temporary accommodation would not allow pets (Focus Group One, pp. 21). Both participants discuss the added burden of trying to keep pets such as cats and dogs out of the floodwater, to keep them safe (Focus Group One, pp. 22). Not having family pets around the house as usual, due current living conditions not being suitable was seen as a loss and even those who did have their pets with them (as Ms X did) experienced additional burdens of tying to keep them safe, which added to the situation.

It seemed that where loss or potential loss was concerned, an element of protection existed. The item was perceived as valuable and therefore merited the use of protective actions, be it moving large items like cars or small ones like ornaments away from floodwater. These actions can be preparatory or retrospective to the event, but the motivation is the same. Hobfoll's theory supposes that '...people strive to retain, protect and build resources...' (Hobfoll, 1989, pp. 513) and that protection of resources will occur because '...the potential or actual loss of these valued resources' (Hobfoll, 1989, pp. 513) is perceived as threatening. 'These losses are important on two levels. First, resources have instrumental value to people, and second, they have symbolic value in that they help to define for people who they are' (Hobfoll, 1989, pp. 517)

Less obvious types of losses were also described during the course of the interview. Normality was a prized resource that was quickly lost. Being able to carry out the usual daily routine became almost impossible due to blocked roads, no transportation or the sheer effort it took to get anywhere because of flood water (Focus Group One, pp. 10 - 33). Ms Z and her husband owned and ran a business in town and her concern was to provide a

service to the community (Focus Group One, pp. 5), along with other businesses such as a local bakery that was also heavily flooded (Focus Group One, pp. 3). They experienced great difficulty in providing this normal service to affected residents when they were also flooded.

Also loss of normal activities at other times of the year was curtailed because of the floods. Ms Y and Ms W both discussed the loss of holidays because they believed that it was a wasted exercise to book a holiday as they were concerned there might be another flood and, 'you've got to be about, haven't you, for the next time?' (Focus Group One, pp. 34). This participant believed that another flood was inevitable and as such had begun to change her routine or normal way of living to accommodate this 'fact'.

Quality of life was also extremely important and one condition that was debated by Ms W and Ms Z. Ms W felt that by removing her antique furniture and personal items out of the way of the water, she could preserve them. However, Ms Z contradicted this view by arguing the case that the act of removing the items that an individual is used to having around them adversely affects a person's quality of life (Focus Group One, pp. 32).

Ms Z's argument centred on the fact that if a person had worked hard for these items and they were treasured and loved, one would miss them not being around. Although in her case this was not an issue as she still had all her personal effects around her. Ms W used the same argument but from the opposite viewpoint in that if you loved and treasured these items, surely that was reason enough to put them away temporarily and keep them safe, so they were not damaged? (Focus Group One, pp. 32).

This illustrates the differences in perspectives towards losses or potential losses and how one might cope with that. Both participants agreed that the items were of value to them but had differing views as to how they should be protected. This debate was echoed earlier when participants discussed their pets and raises the important question of what is the best course of action in trying to protect valued resources. Does the individual keep them around at the risk of further damage or added stress of continued protective activities, or do they remove them out of harms way for an indefinite period of time, which in itself may feel like an additional loss?

Privacy was a prime issue for participants and many felt the effects from a lack of it. Ms X commented on the invasion of privacy she felt from other members of the community who gathered to look at the flood damage whilst they, the affected, were trying to cope. Ms X – 'And what I think is awful is when you get people come sightseeing down the road...not tourists, local people. The children come, they walk to the edge of the water and they stand looking...well I was paranoid in the end because I was going out to neighbours and I was saying to them, 'Well what are you doing? Have you got anybody down here who's flooded, down this road?' And they'd say 'No', and I'd say, 'Well what are you doing down here then?' And they sort of look a bit sheepish and they walk off' (Focus Group One, pp. 3)

The tractor was again a source of conflict with some in the group and one participant, Ms Z, stated that because the route the tractor took was right past her house she felt, Ms Z –

'...you just didn't feel that you had your house, your privacy...' (Focus Group One, pp. 3). She continues, Ms Z – '...that was an added stress because it's...you know, they're all looking in and the noise of it all, the hustle and the bustle. People, as you say (gestures to Ms X) just coming down and staring and...you know, you don't think it but that, that sort of...did affect our, our private life, our home because...I don't know, it just felt as if they were intruding' (Focus Group One, pp. 4).

This introduces another resource, that of 'home'. Those present stated that they had lost their houses, not just in the literal sense as in bricks, mortar and flooring, but also in the symbolic sense of home. The water itself contributed to a feeling of loss of home by physically taking over living space and 'invading' the physical building and removing the intangible quality of 'home' from the house.

The concept of home exists on a variety of levels, from domestic, national or even trans-national (Coates and Fordham, 2000). As the authors continue, 'When disasters strike the home, it is not enough to rebuild and replace damaged items; complex meanings and memories inhere within household structures and their contents, and these cannot be replaced' (Coates and Fordham, 2000, pp. 1).

Ms Z felt that the concept of sacredness and security had been damaged when the floodwaters entered her home. She spoke of the water as an aggressor, and invader that sought to ruin her home and her livelihood. Talking about the possibility of a 'next time' or another flood event, Ms Z stated - 'And I don't want it to happen because at the end of the day it is our homes...and it is our livelihoods and this, there is nothing's been sacred anymore. You have only got your home haven't you? ...And it's invaded' (Focus Group One, pp. 29).

The water ruined the meaning that this participant ascribed to her home and research that Niemeyer, 2001, conducted suggests that there is a '...powerful need for meaning...' (Niemeyer, 2001, pp. 140) following loss (in this research it was meaning following bereavement). The author continued by suggesting that the construct of meaning had two separate elements, that of 'meaning as finding benefits and meaning as making sense of the loss' (Niemeyer, 2001, pp. 144).

This search for finding benefits, meaning or a positive side to the loss was discussed in several ways. Ms W discussed the community action group leadership provided by another woman (not present) and how helpful that direction was in terms of getting something done about long-standing issues in the community (Focus Group One, pp. 24). She then discussed what she would do next time it flooded and that it was good to move things out of the way of the water to protect them (Focus Group One, pp. 31-32). Thus, her knowledge or awareness of the practicalities of flooding was heightened and was perhaps now an advantage to her. Indeed, this concept prior experience being beneficial echoes findings from the Initial Interview, Norris and Murrell's (1988) research and concurs with Mr 1's assertion that prior experience had been a blessing, albeit a mixed one (Initial Interview, pp. 12).

Ms Z, felt that one positive aspect following the flood was that it had brought people closer together as a community. Ms Z – '...everybody was rallying around, pulling together...and that did feel good, you know?' (Focus Group One, pp. 10). This concurs with previous research, which discusses the existence of a utopia or honeymoon period post-disaster in which everyone rallies round to help (McLean and Johnes, 2000 and Raphael, 1986).

Hobfoll, 1989, discusses social support resources, of which community is one, suggesting that they are a double-edged sword, '...that they provide or facilitate the preservation of valued resources, but they can also detract from individuals' resources' (Hobfoll, 1989, pp. 517). This is neatly explained in an example provided by Ms X who commented on how a well-meaning friend wanted to drop by the house and bring a pot plant as a gift, but for Ms X this was perceived as a most inappropriate gift, Ms X – 'She said, 'Ooh I was coming round to you, I was bringing a pot plant round.' And she brought this great big potted plant thing and I thought to myself, 'Why is she bringing me this pot plant? I've got to look after it, if it dies...' (Focus Group One, pp. 20). To Ms X this was not the help she wanted as it just added to the situation as one more thing to sort out and keep going.

Ms Z related a story about how she was the subject of local rumours as she was supposed to have had her property flooded out by her husband (a fireman) to claim on insurance (Focus Group One, pp. 5). Her husband was out trying to pump properties that had been flooded, she was trying to get the local business back up and running to provide a community service and yet she was subject to rumours. Ms Z concluded that '...you really do find your friends out when a crisis is happening. And we have found a lot out since this has all happened' (Focus Group One, pp. 5).

This illustrates the possible negative effects poor social support can have. For this participant social support was not a resource she could call upon to help her deal with the floods. Ms Z – 'Yes, but I don't know about anybody else but I feel that at this moment in time this is when you need your support of family and friends and it's err to me, they have just walked away and they don't want to know and to me that is not friendship' (Focus Group One, pp. 6).

Ms X also agreed with this point when she related a situation whereby she telephoned her mother, in tears, asking for her help and that she was extremely worried that it would flood again. Her mother replied, 'Well you can stop that, I don't want any of that' Ms X replied that she could not help it and her mother continued, 'Well let's put it this way, I haven't been flooded out, I do not know what you are talking about, I don't know what you're feeling like, so I don't want to know' (Focus Groups One, pp. 6).

Participants appeared to have made it their business to understand the floods, their impact and their cause, which illustrates the level of awareness and knowledge gained regarding this incident. Knowledge and its transfer or acquisition appeared to be important. They recalled stories that others within the community had told them about how the environment used to be (Focus Group One, pp. 35). They understood about flood defences in the area (Focus Group One, pp. 35) and about the hazards of building on floodplains (Focus Group One, pp. 27). Participants also discussed the issue of warnings provided to the community via local radio (Focus Group One, pp. 8).

Ms Z was concerned about a lack of money to be able to deal with the flood, Ms Z – 'We've been taken over by the water, by the upheaval of it all and you think, 'Well what is the point of going on? Why, why, why can't we go and move on?' But we can't even do that 'cause we haven't got the money to go and buy something else' (Focus Group One, pp. 29).

Money, an energy resource, facilitates individual effort in obtaining other resources, via purchase or through a sense of security that having money can bring. A lack of this type of resource can limit ability to gain and secure other resources or protect from further loss (Hobfoll, 1998, pp. 59). Money was also lost in inadvertent and secondary ways. Local taxi drivers were charging above the average for fares during the floods (Focus Group One, pp. 10) and some lost wages due to being unable to get into work because there was no access (Focus Group One, pp. 16).

Personal characteristic resources were also discussed but in a less direct manner. Pragmatic outlook on the situation was evident when Ms Y related a story regarding her husband hearing some worrying news. A person told him that their showroom ceiling and walls had caved and he became very concerned. Ms Y told him not to be silly as she was sure the police would have been in touch if that had happened (Focus Group One, pp. 7). This shows a lack of poor understanding on the part of others regarding the devastating effects floods can have upon an individual but also shows Ms Y's pragmatic personality in that she remained positive regarding a potentially serious situation.

Ms X reported that she found a surprising amount of 'fight' in her to deal with the floods compared to how she was before the event. Usually she would have avoided a situation or cried because she was frightened of upsetting people if she was more assertive but since the flood she held the view that '...I will not have people walk all over me and think that this is a joke because it isn't a joke. I couldn't have done this before and when the floods happened the first time I wasn't like this at all, but since this flood, I've got a lot of fight in me' (Focus Group One, pp. 20).

One participant, Ms Z, stated that she and her husband were in the process of making plans to upgrade their business but although they were being proactive and forward thinking they found it a little disheartening as the plans were being made but under the shadow of possible future floods. This indicated Ms Z was trying to be positive but that it was extremely hard and she constantly doubted should she continue (Focus Group One, pp. 29). This researcher wondered if there was a struggle to prevent loss to certain personal characteristics, such as positivity, inherent in the person during normal circumstances in new, pressured situations. Unfortunately this question cannot be answered conclusively as it is not within the scope of the research.

There was also a low sense of control regarding the situation held by some interviewed. When discussing the issue of what to do about the situation, Ms Z stated that they couldn't move away as they had no money. Ms X then stated that the choice of changing the situation is not an option as 'Choice has been taken away from us' (Focus Group One, pp. 30).

4.2.2 Level Two Coding – Appraisal Analysis

Primary Appraisal – Do the interviewees discuss the event in terms of it being irrelevant, benign-positive or stressful to them?

The event was clearly a stressful one for all participants interviewed and none found it to be a positive or irrelevant experience. Ms X described the experience of having to watch and wait for the water to enter her home knowing she could not do anything to stop it (Focus Group One, pp. 2). Not only was the water a threat but also the presence of 'sightseers' who came to her road to look at the floods was an added stress which she admits made her feel 'paranoid' in the end (Focus Group One, pp. 3).

Ms W's primary appraisal was that the flooding was not particularly stressful but neither was it positive as she was aware of the possible implications of the water rising high enough to enter her property. She did not believe the water would enter her home as they had been flooded previously in the area but the water had never entered the house (Focus Group One, pp. 2). However, although she firmly believed that they would not be flooded when she and her husband walked around the house and saw it starting to go into her home she admits it was 'panic stations' then (Focus Group One, pp. 2). This is probably the first real primary appraisal as she is aware of the situation to its fullest extent and the possible implications it may have for her.

Ms Z's primary appraisal took place that morning when she awoke to find saturated carpets and the water level still advancing a situation that she found 'frightening' and 'horrible' (Focus Group One, pp. 2). The participant further reinforced that the situation was stressful for her when she discusses the tractor travelling by her property with people looking in which she felt '...was an added stress...' (Focus Groups One, pp. 4), suggesting that the tractor was an added burden to an already stressful situation.

Although Ms Y had prior experience of being flooded on her business premises up to eight times previously, she was still described the flood as 'rather a shock' as it arrived with no warning and of a depth greater than previous events (Focus Group One, pp. 2). Although Ms Y does not talk directly about stress within the taped interview she does comment off-tape at the end of it, about the strain the floods placed on her marriage, a point that is agreed with by others present (Focus Group One, pp. 36, off-tape).

Secondary Appraisal – If the event is viewed as stressful or negative in some way, is it regarded as harmful or loss making, threatening or a challenge?

This level of analysis is perhaps slightly more difficult to state clearly as most participants suggested that the situation was both threatening and loss making to them. This presents difficulty in illustrating the appraisal process but it must be noted that in some situations it may not be possible for secondary appraisal to be identifiable in such clear terms. The very nature of disaster is that it is complex and many events can overlap so the analysis must reflect this.

Ms X and Ms Z clearly viewed the event as both a threat and a loss-making situation throughout their discussion. Ms X described her loss in terms of how others viewed her

situation. Some neighbours or friends commented on how she would get a new kitchen for nothing to which she replied, 'For nothing? We're not getting it done for nothing. I'm not talking about insurance. All our dignity is gone...we're paying for this with our feelings, what we're going through. We're not getting it done for nothing' (Focus group One, pp. 4). The situation was also threatening to her in that she feared another flood event and was worried that if the authorities did not do something about the situation they would flood again, which at the time, made her extremely upset (Focus Group One, pp. 6).

Ms Z viewed the presence of others sightseeing on the tractor as not only stressful as previously discussed but also as a threat as the strain began to affect her private and home life as she stated that she felt like her home had been intruded upon (Focus Group One, pp. 4). Also, the constant traffic of people watching and looking in made her feel like she had lost her privacy (Focus Group One, pp. 3).

Ms Y, because of her prior experience, stated that she knew that even a small flood would affect them seriously so that once they had recognised the property was going to flood they proceeded to move items out of the path of the water (Focus Group One, pp. 7). Here Ms Y implied that she knew the flood could have the potential to be a loss-making event and therefore she took appropriate action to counter this. She stated that she had to move back in as soon as possible because the car garage (her business) was her livelihood and therefore the potential for loss of earnings was large (Focus group One, pp. 8) even though working in wet conditions was potentially risky and therefore was a threat to health (Focus Group One, pp. 8).

Ms W still appeared to have difficulty reconciling herself with the inevitable, that the water would come onto her property as she stated, 'I think in the back of your mind you're thinking it isn't going to happen really, because you're hoping that it won't' (Focus Group One, pp. 7). However, when she did accept that the flood would affect her and it posed a real threat, she began to move items out of the way of the water to avoid damage and loss although she stated that she still believed that she would just be moving them for a little while (Focus Group One, pp. 7).

Ms X, Y and Z all discussed a secondary threat that the event had for them and the wider community that of public health risk. They all recognised that the floodwaters carried with them inherent dangers for people and especially children. Ms Y stated that the children were paddling and riding their bicycles in the 'Dirty, filthy water' (Focus Group One, pp. 8) and Ms W conceded that 'there could be all sorts of nasties in it, couldn't there?' (Focus Group One, pp. 8). Ms Y suggested that it was lack of awareness on the part of some parents, a point which Ms Z and Ms X both agreed on, with Ms Z stating 'They don't realise it's contaminated water...it's dangerous' (Focus Group One, pp. 8).

4.2.3 Level Three Coding – Coping Analysis

Problem-focused forms of coping '...are often directed at defining the problem, generating alternative solutions, weighting the alternatives in terms of their costs and benefits, choosing among them, and acting' (Lazarus and Folkman, 1984, pp. 152). Problem-focused coping is not just problem-solving though as the authors continue, '...problem-solving implies an objective, analytic process that is focused primarily on the environment;

problem-focused coping also includes strategies that are directed inward' (Lazarus and Folkman, 1984, pp. 152, italics in original).

Problem-focused behaviour was evident throughout the interview from the use of sandbags to protect properties from rising water, to the arrival of the media which was perceived as a resource that they had at their disposal (Focus Group One, pp. 1). Ms W upon hearing of the floods went to visit her neighbour to ask if she was all right and to find out what she was doing to cope with the situation (Focus Group One, pp. 2). This is problem solving behaviour in that the participant is seeking out advice and gauging what others are doing so that she can make an informed decision.

Ms Z worked hard to keep her business running and selling groceries in order to provide a service to the local community (Focus Group One, pp. 3). This she admitted was despite the fact that her business premises were flooded and her husband, a fireman, was out assisting others and was not available. She also used problem-focused coping to handle certain situations involving protection of stock such as moving the stock up out of the possible path of the rising water as a precaution (Focus Group One, pp. 7). Here she demonstrates evidence of weighing up a problem and taking appropriate measures. She stated that although she hadn't been flooded she took her stock up anyway, just in case, as a precaution (Focus Group One, pp. 7).

Ms W also moved items out of the way of the possible path of the water even though she also had never previously been flooded (Focus Group One, pp. 7) demonstrating similar pro-active behaviour. Ms Y however, had prior experience of being flooded and knew immediately that if the water level was rising then her premises would be flooded first and therefore took action to move valuables out of the way (Focus Group One, pp. 7).

Locals also attempted to provide a solution to the problems caused by flooding. As previously discussed a local man drove his tractor through town regularly to allow residents the chance to get to shops and travel to other parts of the towns for their daily needs (Focus Group One, pp. 3). Some offered a solution to transportation issues, which came at a price, such as the local taxi forms charging exorbitant fares (Focus Group One, pp. 10). Although this meant transportation was available – either free or at a price – it did have secondary effects for people such as backwash from the tractor movement or increased spending to cover taxi fares.

Following the flooding many locals attended meetings organised by the Environment Agency established to answer questions and respond to allegations raised by the residents. Residents actively sought to solve the concern of future flood events by requesting that dredging or river defences be put in place as a measure of protection for their homes and businesses (Focus Group One, pp. 15).

Many interviewed chose to call upon family and/or friends to assist them in dealing with the floods, but with mixed results. Ms Z found her friends extremely supportive and she felt her friends were like family to her and especially useful in coping with the rumours that were being spread across town from other members of the community (Focus Group One,

pp. 6). Close friends were a resource she could call upon to cope with the floods but felt the wider community was not as helpful.

A petition was started by a local paper to help raise awareness and encourage the local authorities to take action regarding the flooding in the area but many people who had not been directly flooded refused to sign it even thought it might help those who had been flooded (Focus Group One, pp. 11). This shows that although an individual might wish to actively cope with a situation the resources and support they have can influence the success of that activity or even reduce the available options for coping.
Ms X sought help in dealing with the floods from her daughter who invited Ms X and her son to live with her in their small house but as Ms X admitted it does not matter whether you love your family completely, if you have to live in a two-bed roomed house with your son, daughter, two cats and a large dog the strain will show eventually (Focus Group One, pp. 19). This invite to stay at her daughters house was a useful and practical option to solving her immediate problem of where to live but it did have its drawbacks and Ms X stated that in the end she was in a situation she did not want to be in and everyone started 'to get on each others nerves' (Focus Group One, pp. 19).

Ms Z believed that the community support in coping from the floods hinged on whether the individual had been flooded or not. Those who had been flooded 'all sort of stuck together as we were all in yes, the same boat, to put it...' (Focus Group One, pp. 9). Community assistance seemed to take on the form of asking other individuals affected by flooding if they needed anything which Ms Z felt was indicative of a 'sense of community spirit' (Focus Group One, pp. 9). Although she suggested that this support may have been limited in its duration, as at nine weeks post-flood she stated '...we all rallied round for each other and there was a sense of that at first, but I don't think...whether it's there now, I'm not so sure.' (Focus Group One, pp. 9). This concept of 'them and us' also extended to friends and family and the usefulness in coping activities that they provided.

Emotion-Focused types of activities typically seen include 'regulating the emotions caused by the stressor without trying to change it' (Smith, 1996, pp. 226 – 227) and 'seeking emotional support, religion, and humor' (Freedy et al, 1992, pp. 448).

Ms X experienced the limitations that some methods of coping might have when she rang her mother asking for her emotional support as she was worried about what might happen next time it flooded. Her mother (as previously discussed) was perceived as unhelpful and this did not assist Ms X in coping with the emotional affects of the flood (Focus Group One, pp. 6). Ms X also found that her friend's assistance was limited in a similar manner when she requested the friend come and see the house while the flood water was still there. The friend agreed to visit but as Ms X stated, 'I'm still waiting' (Focus Group One, pp. 6).

Ms X also explained how the situation forced her to alter her method of coping. The situation was one that she wanted to discuss and talk to friends and family about, however she felt others were not interested in hearing her worries. 'All the time you're having to shut yourself...keep your feelings inside because people don't want to hear about it' (Focus group One, pp. 5). She discussed how her emotional response to the situation that she believes caused her son to react by withholding his own emotions in an effort to protect her

from further undue stress. However, he began to suffer from headaches as a consequence of not coping effectively with the emotional effect the floods had on him (Focus Group One, pp. 22).

Anger was also a coping method used by both Ms X and Ms Z in dealing with comments or actions from others. Ms X found that by becoming more vocal and actively confronting people she perceived were having a joke at her expense, or were enjoying the floods whilst she and others were enduring misery, allowed her to be a stronger person to handle the post-flood events (Focus Group One, pp. 20 and 3). Ms Z used social support resources to cope with her experience of rumours circulating about her and her husband and found that at first she was upset but afterwards that hurt turned to anger (Focus Group One, pp. 6).

Disengagement-Focused types of activities typically seen include 'behavioral disengagement, denial, alcohol/drug use, and mental disengagement' (Freedy et al, 1992, pp. 448). Ms W demonstrated both behavioural and mental disengagement coping when she discussed the floods and her reaction to them. When she talked about the act of going out to find replacement items for her home she viewed it as tiring and an activity that she simply did not feel like doing stating that she had lost interest in doing that (Focus Group One, pp. 32).

This loss of interest she believed was due to a feeling that she 'shouldn't be doing this' – that she shouldn't be out buying something new and trying to enjoy the act of purchasing because she had been content with what she had previously and was never going to be able to buy exactly the same thing. Her reasoning therefore, was why spend so much time and effort trying to replace exactly what you lost when it was a wasted exercise anyway? (Focus Group One, pp. 33). This indicates limited mental attention on activities, which she had to undertake and the reasoning behind it.

She also discussed actions that may be considered denial strategies, also a disengagement coping method, when the floods were imminent. She stated that she did not think the flood water would enter her home as it had not done so before and that she held a certain amount of hope as to a positive outcome of the situation, 'I think in the back of your mind you're thinking it isn't going to happen really, because you're hoping that it won't. You maybe know that it will...' (Focus Group One, pp. 7). Even when the floodwater was about to enter her home and Ms W was taking action to protect her valuables by moving them away to a safe place, she still thought 'well you can soon put those back' (Focus Group One, pp. 7).

Ms Z also seemed to use disengagement coping when the floods were about to arrive on her property as she stated 'I mean its frightening that you, you know, you've seen it under the floorboards and you think, "Oh I hope it doesn't come any further" you know?' (Focus Group One, pp. 2). This is perhaps an avoidance technique to lessen the inevitable impact of the situation or to avoid facing up to the extent, which the flood might have. Indeed, in discussing the floods and the fact that her premises were one of the last to flood she states '...it's just devastating you know, 'cause you've gone all those weeks with nothing and...you're just hoping and praying that it isn't going to come and then when it does it's devastating' (Focus Group One, pp. 3). There seems to be an element of hope or maybe

faith in someone or something else to stop or correct the situation before it's too late as a method to cope with the impeding situation.

Ms W also stated that the floods became so overwhelming to her that she wanted to run away from everything. 'I could run away. I mean I've got into the car and been ready to go to somewhere and I've felt I could just continue driving to where to, I haven't got a clue' (Focus Group One, pp. 19). She continues, '...you're wanting to go back...because you want to be home. And yet you don't want to go back...you're not really happy when you're not there but you sort of, you don't want to be there...' (Focus Group One, pp. 19). This is an example of behavioural disengagement whereby the individual wants to actively avoid the situation where possible.

Ms W also related stories about others in a similar situation in the area and how they coped with it. Some moved away from the area when their homes were damaged and decided not to return and others faced continual worry about the possibility of another event and ultimately decided to sell and move out of the area (Focus Group One, pp. 12).

4.3 Focus Group Two

The focus group data was analysed on three levels, Hobfoll's Conservation of Resources (1989, 1990) model categories, Lazarus and Folkman's 1984 appraisal theory and three coping categories as defined by Freedy, Shaw, Jarrell and Masters, 1992 and Smith, 1996. Each level of coding is analysed and discussed before conclusions from both focus groups are stated.

4.3.1 Level One Coding – Resource Analysis

All the resources categories were alluded to throughout the course of the interview either raised as issues by the participants themselves or via questioning from the researcher. The actual losses were not discussed in great detail and this was because most participants seemed to have taken evasive action to limit the damage from floodwater to their property.

This focus group discussed actual or potential losses to property and object resources, either their own such as business documents (Focus Group Two, pp. 5) or others in the town such as the kitchen (Focus Group Two, pp. 16). Property was damaged not only by the presence of water but also afterwards with dust and 'muck' left afterwards, or the lingering smell (Focus Group Two, pp. 17).

Loss of telephones was also reported and the telephone system did not function properly for a time (Focus Group Two, pp. 5). Services to property such as electricity were also lost (Focus Group Two, pp. 23 and 26). Activities undertaken by the participants in direct response to the flood included evacuating business premises and moving valuables such as cars out of the path of the water (Focus Group Two, pp. 1) and other vehicles were also reported as being damaged or written off (Focus Group Two, pp. 14).

One participant was a fireman and was involved in pumping out water from other peoples properties to limit the damage from the flooding to homes as businesses (Focus Group Two, pp. 7). However he stated that the only reason he gave up was because the pump

became flooded and therefore this resource was no longer available (Focus Group Two, pp. 7).

There appeared to be a lack of resources available to residents in order for them to help themselves as one participant said, 'To a certain extent you have to deal with it yourself because there didn't seem to be much...apart from the fire brigade...' (Focus Group Two, pp. 10). Although he did not specify what resources would have been useful he alluded to resources such as increased information and social support from officials as possible examples of what he would have found helpful (Focus Group Two, pp. 10). Several other participants also discussed this perception of a lack of resources.

One specific type of resource, food, was also reported to be in short supply during the flood event as people began to 'panic buy' groceries in case they were stranded (Focus Group Two, pp. 15). This was further compounded by a lack of available transport and access into the town to actually purchase the goods. Mr A commented that his wife had told him that there was not any food on the shelves to which Mr C retorted 'Oh there was food, just couldn't get to it!' (Focus Group Two, pp. 15).

Experience of flooding was a condition resource discussed by participants. Mr A and Mr C both laughed about who was 'more qualified' to answer questions about what happened when the floods arrived in the area, as if experience was a qualification that earned the right to comment on event authoritatively (Focus Group Two, pp. 1). Mr B had not experienced a flood prior to relocating to the area and felt that his pre-conceptions regarding what might happen were wrong as he was basing his view on information given to him by the previous owner (Focus Group Two, pp. 2). Therefore, although in this case the participant did not have the resource to 'lose' as such (i.e. he did not have any prior experience anyway) the lack of this resource – experience – did affect him.

A loss of normality, previously discussed in the case study interview and the all-female focus group, was also perceived as a loss. Mr B stated that 'We could not carry on our normal routine...' as they were unable to trade due to the water on their premises (Focus Group Two, pp. 5). Mr A felt that the presence of water in the town caused 'chaos' and also severe transportation problems such as having to take detours or not being able to travel (Focus Group Two, pp. 9). The abnormality of the situation was likened to 'living in a dream world. You see it wasn't real...' (Focus Group Two, pp. 15). Mr A also cancelled his usual pre-Christmas celebrations with his workers as no one felt 'like doing anything really' so instead of a party they just had a few drinks (Focus Group Two, pp. 26).

Other participants attempted to carry on their normal routine as well as they could, throughout the disruption. Mr A continued to employ workers at his business as he said they had 'to try and keep working' (Focus Group Two, pp. 5). However his new daily routine could perhaps be likened to damage limitation activities as he was drying wet papers and trying to keep a business going within severe constraints (Focus Group Two, pp. 5). The normality of the community and town was also disrupted as many were forced to move into temporary accommodation due to lack of services or water on the premises which left the area 'like a ghost town' (Focus Group Two, pp. 23).

Health was a condition that was affected in terms of physical illnesses such as coughs and colds (Focus Group Two, pp. 19), or feeling tired and exhausted from working long hours trying to deal with the floods (Focus Group Two, pp. 7). Also the mental health of neighbours and other residents was discussed as Mr A stated the case of a friend he believed had a mental breakdown due to the pressures of the floods (Focus Group Two, pp. 18).

Although a loss of security or safety was not directly questioned it was subtly alluded to. The researcher asked the participants if they thought about the floods a lot to which Mr A replied, 'I suppose the thing that sort of makes me nervous because fortunately I don't have that problem, is when it rains heavily' (Focus Group Two, pp. 16). This was further concurred by Mr D who stated that he watched the level of the water on the bricks on the side of the beck and how high they had risen noting that if they rose one more brick 'we'll be paddling'' (Focus Group Two, pp. 16). Mr D continued by suggesting that this activity of watching the water levels was something he would not have done a year or two ago but now he feels he is 'sub-consciously' drawn into it (Focus Group Two, pp. 16).

Relationships at home were also strained as Mr C stated 'I don't think anyone could genuinely sit here and say, whether it be marriages or relationships weren't strained' (Focus Group Two, pp. 18). However this was the only negative comment regarding the strain relationships may have been under and was not expanded upon.

A loss of normality combined with a loss of feeling safe extended not just to the daily routine but also to future activities, which was also discussed in previous interviews. Mr A stated that he had not been on holiday because he was concerned the moment he stepped out of the country it would flood again and he had made a decision not to go abroad for his holiday 'until we get things sorted out' (Focus Group Two, pp. 16).

There were also secondary effects of the flooding, such as infestation from rats that affected participant's normal routine. Mr D stated that his property suffered from rats after the floods and that his children usually ate meals or snacks in their rooms but that due to rats running in the house he had to tell them not to continue eating in their rooms. Although he did humorously comment that he used this infestation to his advantage to get the children to do what he wanted as they did not like the rats, so the threat was used as a deterrent to children eating food in the bedroom (Focus Group Two, pp. 18).

There was a level of acceptance as a personal characteristic that was evident throughout the discussion that the area was 'noted for flooding' (Focus Group Two, pp. 2). Pragmatism in terms of getting down to the business of moving items or cleaning up afterwards (Focus Group Two, pp. 1 and 5), keeping a sense of humour when builders were working inside as a plaster bath floated past them outside (Focus Group Two, pp. 7) and a belief that elements of luck played a part in their experience (Focus Group Two, pp. 6) were all discussed. Indeed a sense of humour seemed to be prerequisite even though the situation seemed 'futile' (Focus Group Two, pp. 10) and hope appeared to be a personal characteristic that was quickly lost once the reality of the situation became evident (Focus Group Two, pp. 7).

Prior experience also appeared to be extremely useful as it gave participants the knowledge and understanding of the event and what solutions might be put in place to rectify the situation. Participants cited examples of various forms of flood proofing they had seen on television, researched on the internet or had installed in their own homes to better protect themselves as they were aware that better solutions needed to be sought than were currently available to them such as sandbags (Focus Group Two, pp. 8). Indeed, participants compared themselves to other flood locations in the UK and Holland citing flood defences they knew were available there (Focus Group Two, pp. 8). In this case prior experience actually aided in increasing knowledge of the methods by which participants could protect themselves and their belongings.

During the flood obtaining accurate information was vital but sadly lacking. Mr A telephoned the Environment Agency requesting information about further flooding and what was happening and he said that he had been the one to tell them that there was water in the area (Focus Group Two, pp. 9) indicating the authorities were not aware at that time. Several discussed their use of local television and radio stations to provide them with accurate information especially regarding the weather (Focus Group Two, pp. 5).

Participants knew the history of the local area and what floods had occurred and to what level (Focus Group Two, pp. 2 and 3), the usual behaviour of the water when it flooded previously (Focus Group Two, pp. 1 and 4) and what renovations or improvements other residents had done to their property (Focus Group Two, pp. 8). Participants reported that dealing with the various issues arising from the floods took a significant amount of time, such as finding time to go shopping for food (Focus Group Two, pp. 15) and the amount of time the floods lasted for with no obvious end in sight (Focus Group Two, pp. 15).

The floods had financial implications for many participants and some had insurance to cover damage costs (Mr B) and others did not (Mr A), (Focus Group Two, pp. 5). Certain costs also rose due to inconvenience from the floods such as fuel (Focus Group Two, pp. 9) resulting from the increased time vehicles were used finding routes to and from locations, as usual shorter access routes were blocked. Also some participants had to buy cleaning equipment to disinfect their premises to allow trading to continue which was not reusable, as it had to be burned (Focus Group Two, pp. 19). Skips used to store items to be thrown away were also paid for by participants which was an added cost (Focus Group Two, pp. 23).

However, the use of credit was a welcome relief from immediate payments as Mr A described the professional courtesy that was extended to him from another garage he did not normally deal with (Focus Group Two, pp. 14). There was also a potential secondary financial loss arising from the floods when Mr A related a story about how a policeman warned him not to park cars that had been moved from a flooded location onto double yellow lines during the flood as they would be ticketed regardless of circumstance (Focus Group Two, pp. 14).

Social support came from a variety of sources and some were more helpful than others. The official sources of support, such as the Environment Agency, were required but not available at the level residents expected (Focus Group Two, pp. 9). Also politicians and

government representatives were perceived as less than useful with Mr C citing the case of John Prescott visiting the area and being photographed in the water but that 'nobody outside of this town realises the amount he's done for us since. Because they just see him in the water. I mean he hasn't been back, he isn't interested is he?' (Focus Group Two, pp. 28).

Local support was viewed as infinitely more useful with Mr A and B agreeing that there was a 'sense of community' whereby 'everybody mucked in' (Focus Group Two, pp. 14). Mr C laughed when he discussed the elderly customers who came into his store saying the experience of the flood in the town was like the war or simply offering to help clean out (Focus Group Two, pp. 15 and 27).

However, as was raised in previous interviews, some members of the community were less than helpful. Mr A – 'Well I think what annoys you about was people...saying 'Ah, have you had a lot of water here?' 'No, no' (sarcastic tone adopted here) 'Not really' (Focus Group Two, pp. 19). Here the inappropriate use of humour from others to flood affected participants was not seen as helpful in the slightest.

The usefulness of social support was hampered by certain constraints. The local community was also dispersed post flood (Focus Group Two, pp. 22) with participants discussing the eerie feeling that some areas had as there were no residents in the houses (Focus Group Two, pp. 23). Therefore social support from neighbours that may have normally existed would not be available due to relocation of the residents. Mr C, in his professional capacity of fireman, wanted to try and move a vehicle to save it from being flooded but was not allowed to do so by the insurance people present in case the car was damaged (Focus Group Two, pp. 14). He found this immensely frustrating stating 'I mean I was getting to the point where I said, 'I'll take my kit off and f**k off and go have a pint' you know? But they just won't let you do it' (Focus Group Two, pp. 14).

4.3.2 Level Two Coding – Appraisal Analysis

Appraisal analysis of the interview was made difficult because the researcher did not question each participant directly regarding the process, if any, undertaken to appraise the situation rather it was hoped this would naturally be discussed throughout the course of the interview. Interviewees were not as open to discussing their personal feelings and perceptions of the event as the previous interviewees were and therefore these data were hard to identify. Data were available to support the continued use of the appraisal theory and is presented herein.

Primary Appraisal – Do the interviewees discuss the event in terms of it being irrelevant, benign-positive or stressful to them?

By implication the flood was neither positive nor irrelevant for the participants as they discussed in some detail the effects the flood had on their property and the actions they took to counter further loss. Mr A did not actually state that he viewed the situation as stressful but he did make mention of the need to continue to work quickly to get his business back up and running as he had no insurance (Focus Group Two, pp. 5) indicating a sense of urgency regarding the situation.

Mr B did not have any prior knowledge of the floods and held certain expectations of what would happen. He said, 'in fact I didn't think it would be as bad and as it turned out, it was worse' (Focus Group Two, pp. 2). This indicates that he was in a situation that he did not find positive or irrelevant.

Mr C did not discuss the floods in terms of stressful, irrelevant or positive situations rather it was in terms of being an inevitable fact that would happen to him and therefore he was required to take action of some sort to mitigate the effects. As Mr C was a fireman at the time he was involved in flood related activities in other locations two to three days before the floods hit the town and as such he knew whatever the other locations experienced he would too (Focus Group Two, pp. 2).

Mr D was less concerned about the floods as he had faith in recently installed flood-protection measures (Focus Group Two, pp. 3) which he found useful at stopping the volume of unwanted water on his property. However, there is little indication within the interview as to what the primary appraisal process was although it can be suggested that as he spent time and money, installing counter-flood defences that he did not view the situation as either positive or irrelevant.

Secondary Appraisal – If the event is viewed as stressful or negative in some way, is it regarded as harmful or loss making, threatening or a challenge?

Mr A viewed the situation as a threat as the thought of impending floodwater on his property was incentive enough for him to move his valuables (the cars) out of the garage forecourt. The flood was also a potential loss-making situation so he took steps to alleviate or at least minimise the loss (Focus Group Two, pp. 1).

Mr B viewed the flood as a loss-making situation as it interfered with his ability to run his business until the water was cleared and the hygiene inspectors gave the premises a clean bill of health to continue trading (Focus Group Two, pp. 6).

Mr C viewed the situation as a loss-making one especially as he was involved in trying to keep water from resident's property in his role as fireman. Regardless of effort put into halting the flow of water some properties succumbed and he was 'absolutely heartbroken' (Focus Group Two, pp. 7). Mr D however did not mention whether he found the situation loss-making, threatening or challenging.

4.3.3 Level Three Coding – Coping Analysis

Problem focused coping was used extensively by the participants interviewed as many actively managed the situation by taking evasive and protectionist action to save their valuables (Focus Group Two, pp. 1 and 5) or used the time productively to plan future activities within their business (Focus Group Two, pp. 6).

Previous experience of flooding had made some participants install protection against future floods such as modifying drains (Focus Group Two, pp. 4). Some protective activities were done during the flood such as putting sandbags down to halt water entering

the house (Focus Group Two, pp. 5) although the use and value of this action was questioned (Focus Group Two, pp. 8).

After the floodwater receded one participant discussed the clean-up operation, which was hampered by floods rising once again and ruining their work leaving a sense of futility (Focus Group Two, pp. 6). This reinforces Hobfoll's statement that resources are further depleted if resources are used to offset loss but is ultimately unsuccessful (Hobfoll, 1989, pp. 519).
Participants also questioned the possible alternative solutions for protecting their property giving evidence of a variety of items that could be installed for use in a flood (Focus Group Two, pp. 8). This illustrates their pro-active perspective on the situation by recognising existing solutions were inadequate and putting effort into investigation of others instead.

Many sought accurate information (as previously discussed) from a variety of sources including television and radio or local authorities but most were found to be inadequate (Focus Group Two, pp. 10). This highlights again the positive steps participants took to understanding the situation to best deal with it but through lack of resources were unable to do so. Mr C even went as far as to investigate the history of the area to understand the flood situation better (Focus Group Two, pp. 12).

The use of humour as a coping mechanism was also evident as Mr C stated, 'And you know I couldn't just nip round I had to put wellies on and paddle to his house to see if we were going to the pub you know!' (Focus Group Two, pp. 6). Mr D, when asked what he would do differently if there was a next time replied, 'I suppose I'd pray to...the God of Lost Causes or whoever...perhaps light a candle to them...' (Focus group Two, pp. 20), which elicited laughter at that point of the interview. However, this humour was not always present and the seriousness of the situation did sometimes seem to have overwhelmed the participants as Mr A stated, 'you didn't feel like doing anything really' (Focus Group Two, pp. 26). Here an emotional response to the seriousness and intensity of the situation is evident.

Social support was well used in coping with the cleaning and general practical necessities of the post-flood situation. One participant reported customers enquiring if they could help clean and another, his workers assisted in the clean up beyond the call of their job (Focus Group Two, pp. 27).

Mr B reported trying to 'keep control' of the situation as a way to cope with what was happening. He realised there would be an end to the situation but it was frustrating to him not to know when exactly (Focus Group Two, pp. 16). Mr A suggested a phrase 'gin and bar it' (Focus Group Two, pp. 20) which locally means to 'grin and bear it' – i.e. to just get on and deal with the situation as best you can. He further stated, 'There's nothing you can do about it...' giving his reasoning as he cannot afford to move anyway so he has to get on with the act of dealing with the floods (Focus Group Two, pp. 20). There was a level of reluctant acceptance here that the situation was not good but that keeping a practical perspective is best.

There was not much reference to disengagement activities, which was similar to the case study interview with Mr CW and in direct contrast to the all-female focus group. Mr C was closest to articulating his desire to walk away from everything when he discussed his frustration at being stopped from trying to remove a car from the path of the water by an insurance person. His level of frustration was evident at the time when he swore and wanted to walk away and have a drink (Focus Group Two, pp. 14). He appeared to become disillusioned with the situation and wanted to resort to alcohol to try and ignore it.

Mr A describes the situation as being like a dream world in which nothing is real indicating a level of detachment through denial, a disengagement coping strategy as stated by Freedy, Shaw, Jarrell and Masters, 1992. Whereas Mr B attempted to occupy his mind by engaging in other activities 'I mean that's how I keep sane, by immersing myself in whatever I am doing with them (activities). I mean a trip to the shops, helping clean a bedroom or whatever...' (Focus Group Two, pp. 16, researchers brackets). These activities were not totally related to the flood as Mr B's living area was not flood affected so it may be suggested that he was engaging in avoidance or behavioural disengagement activity to cope with the situation.

Mr C was able to go away for a period of time whilst the renovation work was being done so that he could avoid the 'dust' and the 'muck', which could be construed one of two ways (Focus Group Two, pp. 17). Either he left the house and the country to avoid the situation, in which case it was a disengagement coping activity or he left as a practical option to avoid the messiest period of the renovations as a planned activity. It seemed his motivation was to give his wife a break from cleaning (Focus Group Two, pp. 17) and therefore it is probable that this activity was a problem-solving one.

4.4 Focus Groups Conclusions

Overall, Group One discussed all resources categories, demonstrated both primary and secondary appraisal and various coping methods, including disengagement coping, which had not been discussed in the previous interview. This suggests that the three levels of analysis are suitable for further interview analysis and to examine the research aims and objectives.

Losses of a subjective nature were discussed such as normality, privacy, home and security, which appeared to have both physical and non-physical aspects. Normality was lost in terms of being able to conduct the individual's usual everyday routine (being physically able to travel somewhere for example) but also it seems that it was lost in terms of the potential for normality – such as not booking or taking holidays 'just in case' another flood occurred.

Physical losses also appeared to have a subjective loss element, supporting one research objective, that of a duality of resource loss. Damage and loss to the house was clearly evident when participants talked about four foot of water on their property or carpets being ruined. But a loss of this physical structure also gave rise to a loss of the subjective nature that the house provided – home, security, privacy and familiarity. Ms W stated that she used to be interested in her home but now she just wants it put right (Focus Group One, pp.

17). She felt that there was meaning that was a part of her house, which was lost as a result of the floods 'you know your houses don't quite mean the same to you. You've sort of lost that...with your house' (Focus Group One, pp. 17).

Ms Z suggested her home has been damaged not just physically but also in other less definable ways. Her house was 'sacred' to her and had been invaded by the water (Focus Group One, pp. 29). The water was an intruder that has forcibly entered her home and private space and damaged it to the extent that she would consider moving but cannot due to financial constraints (Focus Group One, pp. 29).

The act of coping with the rising water and placing objects out of the waters path means that for one participant, Ms Z, she lost a feeling of familiarity of being able to look at her items where they usually were. Whereas Ms W did not experience that particular loss as to her the act of keeping the items safe was more important than being able to see them (Focus Group One, pp. 32). This dual aspect of loss and the presence of subjective losses required further investigation and this is dealt with in Section 4.5. It must also be noted that there was no evidence of drug or alcohol abuse in a disengagement coping manner with the floods within the discussion or in the previous interview.

The second focus group interview and themes discussed covered all categories suggested by Hobfoll (1989, 1998) and provided evidence for the use of coping activities as per Freedy, Shaw, Jarrell and Masters, 1992 and Smith, 1996. The researcher felt the participants were slightly less open with their feelings or perceptions of the flood situation than the female participants previously but believed useful and relevant data supporting the aims of the research was achieved. Support was also provided for Hobfoll's (1989) concept that investment in resources, which is viewed as unsuccessful, will result in further loss. Indication was provided as to the existence of more subjective forms of loss in terms of condition, energy and social support resources although little evidence regarding the duality of resource loss was seen. This also required further investigation and is dealt with in Section 4.5.

However, there was difficulty in extracting the relevant data regarding the use of primary and secondary appraisal within the flood situation which may in part, been due to the researchers relative lack of experience at this early stage of the project. There was also some concern that the term 'stressful' within the primary appraisal classification may be not entirely suitable when discussing the floods with less talkative or guarded participants. This was because the term stressful has certain connotations that may not be applicable to all participants. This was why the use of the modified classification to include inclusion of any appraisal, which may be perceived as 'negative' in some way, was more suited to this type of research.

4.5 Post Focus Group Questionnaire

4.5.1 Introduction

In this section discussion centres on the post-focus groups phase of the research in which a short questionnaire was distributed to those who had been originally approached regarding

their participation in the focus groups. Only those who expressed willingness to be contacted again post-interview were written to. Nine of the original twelve that expressed interest in participating in the focus groups were contacted. The methodology used at this stage is briefly discussed, preceding an examination of the findings from this questionnaire, before concluding.

4.5.2 Methodology

Following the focus groups interviews the issue regarding loss and in particular the difference between physical and non-physical losses seemed to require clarification. At this time the researcher had not yet conducted any research in Northamptonshire and indication was sought from those contacted in Yorkshire as to what types of losses they experienced could be categorised into physical or non-physical losses. Furthermore, as this study was interested in what types of coping activities flood affected persons undertook to deal with losses, each participant was asked to state how they coped with the loss specified.

A short covering letter thanking participants for their previous help (which included individuals who wanted to participate but because of various constraints could not at that time) and asked them to think about the types of losses they experienced. Clarification was given as to what the researcher meant by physical and non-physical losses and these terms were used in place of objective and subjective losses as it was felt that these words might be confusing.

The questionnaire (see Appendix B) asked each respondent to think about five physical items that they lost and five non-physical items and to rank them in order of importance. Furthermore, after each item listed the respondent was asked to think about how they coped with that specific loss. An example answer was provided for both the physical and non-physical loss question as it was felt that it would aid respondents in understanding what was asked of them.

Three further questions were asked. Question 3 asked how respondents viewed the floods at the time they occurred, as a challenge, a loss or a threat. This was directly related to Lazarus and Folkman's (1984) suggestion that secondary appraisal processes concern how the individual views the situation. The researcher wanted to understand did any of those previously questioned actually view the event as a challenge or did they all believe it was a threatening or loss-making situation. This was because if the researcher understood how they viewed the situation overall, then their coping actions listed previously could be placed in context of the event and its obstacles.

The researcher also asked for respondents to state their gender and age. This was because based on previous findings there seemed to be some subtle differences between male and female participants in terms of what type of coping activities they employed. The researcher wanted to ensure these differences were not simply due to male participants being in a face-to-face situation feeling reserved about speaking to the researcher, but rather because of a real difference. However, due to the small number of responses this demographic information was neither relevant nor useful to the research and was discarded. Responses received from the questionnaire indicated that both male and female participants

discussed their experienced freely and differences in the interview data were attributed to situational factors.

Reassurance was given as to the confidentiality and anonymity of all replies received and no contact details were requested on the form so the researcher could not know who replied. Again should the participant require any further information, contact details for the researcher were given at the top of the letter.

4.5.3 Results Question One – Physical Loss

Four out of nine replies were received, (three female and one male) which although a low response, was to be expected as many were at this time (June 2001) engaged in moving back into their houses or undergoing buildings renovation work. The responses received and the coping specified to deal with each loss, are discussed in turn starting with the physical losses then the non-physical losses.

In response to Question 1, physical losses such as decorating, household furniture and ornaments were specified by Focus Group Questionnaire (FGQ) Respondent One. In response to this first loss FGQ Respondent One did not actually state how she dealt with it only detailing the effect it had on her. 'Devastating as we had spent hours doing it only completing in December after last flood' (FGQ Respondent One). The loss of her 'Kitchen' (specified as Item 3 on the questionnaire) appeared to cause great anger as a coping method employed, not only at the loss of the item, but of the secondary losses to normality. 'Angry at the thought of what our lives would be like without this main room' (FGQ Respondent One). There is a suggestion that the normality of living arrangements may be suspended or even irrevocably damaged (as in 'what our lives would be like without this main room'). It is not just the loss of the item – the kitchen – but what it represents. This was an emotional coping response.

Items 4 and 5 were detailed as 'Items of furniture to be restored' and 'Ornaments broken/furniture scratched' (FGQ Respondent One). Regarding these items, the respondent was both distressed and deeply angry at their loss. Relating to the furniture she coped because she was, 'Relieved to know a good restorer but found the insurance side of things very distressing' whereas with the ornaments, her coping method employed was 'Angry that a lot of home contents could be saved if insurers organised storage when a flood was evident' (FGQ Respondent One). Her furniture was important to her and anger is expressed in the lack of assistance and awareness on the part of someone perceived as able to help (the insurers). She suggested there was obviously something that could have been done to protect her items of value but this was not done. She expressed relief at being able to find someone capable of restoring her furniture indicating she coped by actively seeking someone to rectify the situation and solve the problem.

FGQ Respondent Two specified 'Personal belongings of a kind that cannot be replaced by money' coped with by the simple statement 'You just have to realise you can't save everything' (FGQ Respondent Two). Here the respondent shows a degree of acceptance in coping with the situation regarding the one loss he felt was most important, those items that have value beyond financial. There is a view of pragmatism that the situation is solvable

but to a point. The suggestion here is that there is no way to replace or recoup the loss and to cope he accepted the fact and moved on.

The second item specified was 'Personal Belongings (insurable)' and his coping method was to 'Make sure you cover the value of everything lost (bikes etc) and be prepared to haggle and insist on your rights with loss adjusters' (FGQ Respondent Two). Regarding the loss of items which he knew were replaceable he uses a much more problem-focused approach to deal with the situation in comparison to the previous item. He is prepared to fight for what he believes is due to him. These are physical items which can be replaced and as such seem to warrant an active coping strategy whereas previous losses, which affected him more deeply (by being specified as Item 1) do not receive the same coping style. This is perhaps because ultimately he accepts he cannot replace what has been lost and that there are items to which money cannot replace the value that has been lost.

FGQ Respondent Two detailed 'Fixtures and Fittings of House' and 'Plants in Garden' (FGQ Respondent Two) as the next two items lost. When asked how he coped with these losses he stated, 'Steel yourself to put up with the fact that part of your home will be a building site for months, the, in a funny kind of way, you can enjoy 're-designing' / sorting out new decorative schemes' and 'You try to protect them, but, ultimately, being under 9' of water for two weeks will kill many plants!' (FGQ Respondent Two).

He stated in relation to the loss of fixtures and fittings, that there was a period of time in which you 'have to put up' with the mess and renovation work but that afterwards there was a positive or enjoyable period in which the individual can redesign their home as they wish it to be. Here the respondent coped by accepting the situation and adopting a positive outlook on events relating to this loss, so there seems to be a 'silver lining' to it.

Regarding the loss of plants there was an acceptance once again that one cannot fight to save some things. There is awareness and humour in the statement that submerging plants in that volume of water for so long leaves little one can do to protect them. The use of humour is typically acknowledged to be an emotion-focused coping activity, usually with negative connotations, but here it seems to be tempered with a healthy dose of reality – that there is only so much you can do to actively save your valuables.

FGQ Respondent Four Specified 'House' as her first item lost and when asked how she coped with this loss replied, 'I was much more upset in the second flood (Nov 2000) than the first – but knew I had to get on and organise repairs etc' (FGQ Respondent Four). The house was not literally washed away; the building still remained, but in some way her house had been lost. The participant used a problem-solving coping method to deal with this upsetting loss, that she 'had to get on and organise' things to be done to repair the house. This suggests that whilst the loss may be perceived as upsetting emotionally it does not necessarily follow that an emotion-focused or disengagement focused coping approach will be adopted.

Items 2, 3, and 4 were 'Car', 'China' and 'Children's toys' (FGQ Respondent Four). The loss of the car was 'Very difficult to cope with as in such a rural area I am very dependent of it' (FGQ Respondent Four). Here the respondent indicates the secondary losses that the

loss of one item may bring. Not only has the car been lost but the travel and ability to move freely as usual has also been lost. The individual here indicates that there are other compounding losses associated with this one item. This supports Hobfoll's (1989) theory that losses can have secondary value.

The loss of her china was '...very distressing – collections I had been adding to since my 20's broken and ruined' (FGQ Respondent Four). In this case the loss of china was experienced as important because of the meaning associated with it. The china had been collected over a period of some ten to fifteen years (the respondent indicated she was in the 31 – 40 age bracket), which indicates a strong level of attachment that was 'ruined' when the china was broken. This is an emotional response to a loss.

In order to cope with the loss of her children's toys the respondent stated that she 'Tried to comfort them with thoughts of replacement' (FGQ Respondent Four). In this case the loss is not directly her own although there is a secondary effect for her personally. Her children's toys are lost and by implication the children were upset as she 'tried to comfort them' by offering them the 'thoughts of replacement'. Hobfoll (1989) suggests that replacement is one way to deal with the aftermath of a loss and here the mother is trying to redirect the upset her children were experiencing to the future and new toys. This is an active coping strategy as it aims to have a positive effect by redirection of emotional ties from the lost object to a new replacement.

The final loss stated, that of 'Our garden' was perhaps difficult to cope with as the participant stated it was 'Very hard after my husband had worked so hard on it to see it covered in sewage, oil, etc' (FGQ Respondent Four). A final loss is similar to one specified earlier by FGQ Respondent Two, that of the garden. Again here it was not only the loss itself but perhaps also the meaning and level of attachment entwined within the lost item. There is a suggestion that the loss is harder to bear because of the time and investment the individual put into the item. This again concurs with Hobfoll's (1989) suggestion that resource loss is harder if significant investment has been placed in the item only for it to be lost.

4.5.4 Results Question Two - Non-Physical Loss

FGQ Respondent One Specified less tangible losses such as 'Time for Living' and 'Time with our family and friends' (FGQ Respondent One). To cope with the first loss she stated that she 'Tried to lead as normal as life as possible but with great difficulty especially when it rained' (FGQ Respondent One). And in response to the second loss, 'Replacing items finding process so time consuming. Travelling around was also very costly. Angry we had not a home at Christmas. Missed almost nine months of life' (FGQ Respondent One).

Within the first item 'Time for Living' there are several losses, which the respondent articulates. Time is very important to this participant, as three out of five of her losses were time related. Time is an energy resource according to Hobfoll's (1989) categorisations. This loss appears to suggest that there was no time to actually continue the day-to-day business of living as it was taken up by other matters, in this case the disruption to normality when it rained. This is perhaps due to the worry of every time it rains, as this was a common feeling during the focus groups. A second loss here is that of normality, a loss of the usual way of

life disrupted by rain. The coping activity suggested here is one of active or problem-focused coping – the individual just tried to continue much as before but it seems that it was not entirely successful.

The statement provided in relation to coping without time for family and friends suggests that time was a loss because so much of it was used to rectify the damage caused by the floods and that little was available for more pleasurable activities. 'Replacing items finding process so time consuming. Travelling around was also very costly. Angry we had not a home at Christmas. Missed almost nine months of life' (FGQ Respondent One).

A second type of loss, again an energy resource as classified by Hobfoll (1989) is that of money. Travelling was 'very costly' indicating a loss of financial resources. And finally time has been lost in terms of the amount of months spent dealing with the aftermath of the flood. That she has missed 'almost nine months of life' suggests that she was not living rather just dealing with the situation – this is further reinforced by the placement of 'Time for Living' as Item 1 above. Here the coping process was concerned with replacement and a problem-focused approach to rectify the situation.

The third item specified as a non-physical loss was 'Home' (FGQ Respondent One). When asked how she coped with this type of loss the respondent replied, 'Being one of many with a home in the same state helped pulling together. I felt I could have driven away and taken a new identity just coping with some of the public their comments were hurtful as this happening was out of our control' (FGQ Respondent One).

Home is a loss that the respondent alluded to in Item 2 when she stated 'Angry we had not a home at Christmas'. The house was still in existence but the aspects that made it 'home' were missing. However, coping in this instance was reinforced through use of community support – that there were many in a similar situation helped. This loss of home was obviously a deeply affecting experience – enough for her to suggest that she could drive away and assume a new identity. Is this perhaps because she felt her old identity was gone? Or was it because she felt she had a new identity – that of a flood victim which was not acceptable to her?

Whatever the underlying reason the respondent indicates that some members of the public were less than helpful, making 'hurtful' comments, which does suggest that social support was not always available from those not directly affected. This reinforces Hobfoll's (1989) stance regarding saliency of loss and its impact depending on whether it affects you or someone else. A final loss alluded to here is that of lack of mastery or control of the situation. She suggest that the comments were in themselves, hurtful, but possibly more so because she felt the situation was not her fault and had occurred through events which were out of her control. The coping approach that seems most evident here is that of disengagement – a sense of wanting to run away from it all, in this case physically.

Home is a condition, a state of being that exists within a physical place and is not something we necessarily view as important until perhaps it is gone. It is interesting that this respondent uses the word 'Home' to indicate not the physical bricks and mortar lost (in which case one might think this type of loss would have be specified within the physical

losses question previously) but rather the meaning and other non-tangible assets she believed this place contained.

Item 4 specified was 'Time for thought' (FGQ Respondent One). However when asked how she coped with this loss she replied 'Difficult living with people also, when at home lack of space' (FGQ Respondent One) which does not immediately suggest an obvious coping method. Again the loss of time (in this case for 'thought') is important. The respondent here suggests this loss is due to having to live with other people indicating relocation may have occurred for a period of time. Also, she states that there was a lack of space. Perhaps this cluttered living environment did not leave 'room' for thought as well? The final non-physical loss stated was simply 'Mind' (FGQ Respondent One). The respondent does not directly state what coping method was used, rather attempts to clarify the extent of the loss 'With not having a specific place for items such as this letter. Mislaying of mail general things drive all us about crazy causing stress with each other' (FGQ Respondent One). The loss of the mind is expressed via not having an ordered household to put specific items in their place and subsequently mislaying them. This is perhaps related to the previous item in that she states that the household had a lack of space, combined with a lack of order and normal routine the resulting situation 'drove us all about crazy causing stress with each other'. She indicates that it is the 'general things' which cause the most stress and hence, her feeling of losing her mind. The coping approach implied here is one of problem-focused that has not been wholly successful. There is no order to her routine or house, which seems to cause her stress.

This respondent took the time to write a brief paragraph relating to events since our last meeting. As was evident much concern still revolved around fixing and problem solving although there did seem to be some minor successes (as in the carpet finally laid and being able to get to clothes into drawers that were warped from water damage). Also there still appeared to be losses even six months after our last meeting such as the realisation that some items even though they have been washed are of no use, mould had been discovered on others and there were ill-fitting wardrobes. These may appear minor complaints after the actual event of the flood, but the reader is encouraged to remember that this was an ongoing situation with continuing impact, which at this time was some seven months afterwards. Overall this respondent viewed the floods as a threat (FGQ Respondent One).

FGQ Respondent Two stated his first non-physical loss was 'Peace of Mind' (FGQ Respondent Two) which he stated he coped with, 'At first you try to cope by ensuring some parts of your home/your life remain 'normal' but after a while the effort to do this is too great and becomes self-defeating' (FGQ Respondent Two). Again the loss to a certain extent of mental faculties is cited. In this case this gentleman related it to the loss of normality much as the previous respondent did. The coping activity undertaken here was pro-active – trying to work to keep life as normal as possible but he admitted this process was too hard to continue and ultimately was a negative coping strategy as it was unsuccessful. Hobfoll (1989) suggested that investment of resources (in this case time and mental approach) only continued as long as it was viewed as being positive and beneficial. Ultimately if it is not successful then it further compounds the original loss.

Item 2 specified by the same participant was 'A sense of place ('knowing where things are')' (FGQ Respondent Two). When asked 'How did you cope with this loss at the time?' he replied, 'With difficulty! You try to do a 'displacement' activity to take your mind off the flooding, but you can't 'do x' because you can't 'find y' and item 2 is in storage etc.' (FGQ Respondent Two). Again loss of order was important, nothing was where it used to be and the respondent here neatly surmises an avoidance coping technique of behavioural disengagement, by directing activities away from facing the flood itself to solving problems or dealing with smaller needs. However, the real loss has not been dealt with and the activities undertaken are ultimately unsuccessful because they cannot be completed. Hence the original loss is further compounded because resources are 'wasted' trying to alleviate a situation but unsuccessfully.

The third item specified was 'Quality of performance at work' (FGQ Respondent Two) and this participant stated, 'With less restful home life, its hard to stay confident at work. You just have to accept lower personal standards with out getting self-pity' (FGQ Respondent Two). Hobfoll (1989) suggested that employment was a condition resource. The loss relating to employment was not a physical one – i.e. loss of a position, but rather loss of quality previously sustained. The participant suggested this loss of performance was due to lack of confidence and conceded that he would just have to 'accept' this lower standard. The coping activity was one of acceptance of a situation in which restoring confidence was perhaps key to resolving the situation. The loss of confidence was a loss of a personal characteristic that was held previously, as was a level of professional or personal standards.

The fourth item specified was 'Control over some parts of life – e.g. talking to/dealing with incompetent contractors 'rebuilding' your home' and the respondent stated he coped as 'One eventually realises that 'being nice' to contractors doesn't work. Terse letters and constant phone calls are the only things that work' (FGQ Respondent Two). Loss of control of a situation was evident in relation to how the respondent usually dealt with daily hassles. The usual method of dealing with contractors ('being nice') was altered to being more aggressive and persistent in order to get a satisfactory resolution. The coping method implied here was action oriented.

The final non-physical loss stated was 'Concern that my 4 ½ yr old daughter would get phobias and bad dreams' (FGQ Respondent Two). When asked how he coped with this loss he replied, 'She seems amazingly ok at present – but if we're still here in the winter, I worry if fears will re-surface then' (FGQ Respondent Two) articulating fears regarding his daughter's well-being and any lasting mental impact from the floods. He did not specify how he was coping with this situation and the suggestion was he would wait until something changed.

Relating to the question if he saw the floods as a challenge, loss or threat he replied; 'All 3 equally, but in different ways. 'It's a challenge: I can face nature and beat it' It's a loss: of goods, It's a threat: to stability of life and property value' (FGQ Respondent Two). He continued, 'I hope I've answered in the style required: It's not so much the physical things – they can be replaced. Its having your life in upheaval for 9 months that's difficult to explain' (FGQ Respondent Two). Here the respondent articulated the changing nature of coping with a flood dependent on the current issue to be faced. It was perceived as a

challenge, loss and a threat but depending on the circumstances. He finally succinctly described the experience of loss post-flood of the less tangible items. The physical items can be replaced; the other losses may not be so easily rectified.

FGQ Respondent Three felt her primary non-physical loss was 'Affection for surroundings and village' (FGQ Respondent Three). This loss caused her to feel '...depressed because it was the start of winter. Felt trapped because couldn't walk the dog in the fields. Thought that we could move house to somewhere less muddy and flood prone' (FGQ Respondent Three). This respondent appeared to lose partial affection for her surroundings and the village in which she lived. This seemed to be due to the feeling of being trapped and losing her freedom to undertake normal activities, such as walking the dog. The tone here is one of wanting to get away from it all ('Thought we could move to somewhere less flood prone') which is indicative of behavioural disengagement coping.

Her second loss was 'Freedom to travel (by car and rail)' (FGQ Respondent Three) and she 'Looked forward to floods ending and made do with telephone and indoor activities' (FGQ Respondent Three). Again, there was indication of a loss of normality and habitude. A loss of freedom combined with positive forward thinking and engaging in alternative activities until the 'freedom' was restored. This respondent stated that she coped by doing other activities whilst she was no longer free to travel as she had done previously, via use of indoor activities and the telephone. This is an active coping method as although this loss affected her, she did not let it influence her unduly and sought alternative ways in which she could achieve a level of freedom until she could travel again.

A third loss stated was 'Carefree security' and when asked how she coped the participant replied, 'Worried that in an emergency we could not get to hospital etc. Wanted to live somewhere higher! As the village was only marooned for a day this fear did not last but the "What if...?" syndrome started, i.e. "What if it happens again and lasts for days or weeks?" (FGQ Respondent Three).

It appeared to be worry about the future and possible events, including hypothetical ones, which occupied her time to some extent. These fears, by her own admission, were not exactly warranted as the village was only 'marooned' for one day but she seemed to have spent time thinking about a next flood and if it was a bigger event of longer duration what would she do. This event seems to have made her start to question her security in so much that previously she could get to a hospital if an emergency occurred but in flooded conditions this may not be possible. The flood seems to have introduced an element of fear into her life as she worries about an event, which could be potentially worse, but which has not yet happened. She is caught in the fear of the 'What if...?' scenario. This respondent viewed the floods as a threat to her, which concurs with her statement of fearing the worst regarding the flood she describes and any future occurrences.

FGQ Respondent Four stated three non-physical losses, 'Normality', 'Privacy' and 'Sense of community' (FGQ Respondent Four). Regarding the loss of normality she stated, 'After initial shock I had to get on with things for sake of children but things didn't seem 'normal' for months' (FGQ Respondent Four). This loss was shocking but she had to 'get on' with things because she had children to take care of. But even whilst involved in the act of

'getting on' and whatever that may have involved, she states that everything did not feel normal for some time afterwards. This indicates how long non-physical losses can impact upon an individual. The coping method employed here is one of active or problem focused coping as she continued to deal with things occurring because she had children she was responsible for but one wonders if she did not, would she have employed the same coping methods?

A loss of privacy was coped with actively, resulting in a positive outcome, '"Flood Victims" seem to become public property – eventually able to use to advantage in campaign for defences' (FGQ Respondent Four). Although it is unclear as to whether the label 'flood victim' is her own or what she perceives others would categorise her as has resulted in an active coping method employed. Her life was on public show and although the respondent indicates that she resented this, she did use this label and the publicity surrounding it, to her advantage. The coping method used here is one of problem solving as although there is an emotional reaction to the loss of privacy, the loss is used productively to gain something else – publicity and raise awareness of the need for flood defences. This respondent viewed the floods as a challenge, which is evident in her commentary regarding her involvement in community campaigns for greater flood defences.

The loss of a sense of community appears to have been difficult, 'Community spirit very low especially after 2nd flood in two years – hard to recover this' (FGQ Respondent Four) and seems to be due in part, to the repeated effects of floods previously. The flood events had eroded the community spirit that by implication existed previously. However, the respondent gives no indication of how this loss was coped with only stating that it was hard to recover from this, which may suggest that coping actions were undertaken but were largely unsuccessful.

Overall, these four respondents state a variety of physical and non-physical losses supporting the concept of objective and subjective resource loss. Non-physical losses such as order, security, normality and control were stated and physical losses such as property, garden and internal fixtures and fittings were described. Greater detail and more items were specified in relation to non-physical losses. This indicated support for the concept that there may be differences of loss, some objectively recognisable and others more subjectively experienced requiring further research. The follow-up questionnaire acted an internal validation tool to ensure that the data collected in the focus group interviews was accurately captured and qualified by the participants themselves. Issues raised during the interviews were again repeated in written format and in some cases expanded upon. In retrospect it was not necessary to collect data relating to age and gender as the response rate did not allow for meaningful data analysis to be performed.

However, there is no pattern of ranked importance discernable from this extremely small group, although there is evidence to support the concept of duality of resource loss. These losses stated, in conjunction with the findings from the two focus groups, were then used to form the basis of study two.

5.0 Study Two: Loss Item Questionnaire

5.1 Introduction

In this section the use of a questionnaire designed to examine the issue of loss and in particular subjective loss, is explored. The aims and objectives of this study, the design of the questionnaire itself and the methodology and sampling considerations are also all discussed. This section will finally cover the results and conclusions from Study Two as they relate to the development of Study Three and the overall research aims and objectives.

5.2 Aims and Objectives

This study was designed to build upon previous findings and assess similarity of data from the case study and focus groups conducted in Yorkshire to the new research location of Northamptonshire.

The overall aim of Study Two was to assess the extent and nature of losses (both objective and subjective) experienced by flood-affected participants in Northamptonshire. As the previous findings were locations specific, to Yorkshire, the researcher required proof that similar findings, themes and issues were also evident in the second geographical location, that of Northamptonshire.

The objectives were as follows:

- To retrieve qualitative information regarding the nature and type of objective and subjective losses experienced by flood-affected participants in Northamptonshire.
- To compare findings on the issues of objective and subjective losses in Yorkshire and Northamptonshire.
- To test the accuracy and reliability of the sampling frame received from Northamptonshire County Council indicating locations affected in the Easter 1998 floods.
- To insert a check confirming that quantitative methodology (in the form of a questionnaire) was not suitable for research of this nature. This was to ensure previous decisions not to administer a questionnaire were correct, as a sampling frame had not been obtained at that previous stage and the location had changed from Yorkshire to Northamptonshire.
- To obtain consent for further qualitative interviews from respondents for Study Three.

5.3 Methodology

Using data obtained at the case study and focus groups stages in Yorkshire, the researcher designed a questionnaire, which was intended to establish if similar findings were present in Northamptonshire as were found in Yorkshire. This questionnaire was also to be used to determine if flood affected persons were still living in the area and willing to participate. Details of the questionnaire design and covering letter can be found in Section 5.5.

As the flood event in Northamptonshire had occurred some years previously, the researcher contacted the County Council for assistance in identifying the exact locations affected. A short list of flood-affected properties or locations across the county was obtained which was then modified to produce a randomly generated list of 250 properties used to pilot the questionnaire. This process is detailed in Section 5.4. This list contained both business and residential properties and some were not clear as to which they were. The researcher did not want to include business properties in the research so those clearly identifiable were removed, as she was concerned with those who were flood affected in their homes only. If the research at this stage also included business properties then prior data obtained may not be relevant as it was collected from participants in relation to their homes only.

The questionnaire with a covering letter was posted in mid-September 2001 (Appendix C) and replies were received within two weeks. However, a period of four weeks was allowed to elapse before a second 'reminder' letter was posted to all 250 addresses. The second week of October 2001, six weeks after the original questionnaire and cover letter were posted, was used as a 'cut-off' point after which no more replies were received. Eighty-two out of two hundred and fifty questionnaires were returned indicating a 33% response rate, which was good considering the time that had lapsed since the event and the uncertainty of the list. The findings from this study were then used to form questions and an interview guide for qualitative interviewing in Study Three.

5.4 Sampling

After initial discussion with the Northamptonshire County Council's Emergency Planning Unit (EPU) a list of addresses and areas across the county was obtained. This list detailed forty-nine towns and villages, with addresses (some detailing actual houses other merely locations) the County Council reported as being flood-affected in the Easter 1998 floods. This was known as the original list. This list did not contain every postal address flood affected, rather it was a collection of towns and villages, some premises were specified by house number or name and was not in a condition to be used immediately.

A complete list of addresses, with house names or numbers, was required to assess the actual number of potentially affected properties. The Royal Mail's online postcode service was used to generate lists of complete postal addresses by typing in an address and town or village. This then allowed an expanded list of possible addresses within the same location to be printed. For example, if the researcher typed in 'The Main Street, Village' a list of properties in this location resulted. This was in the format of: '1 The Main Street, Village' '2a The Main Street, Village' '4b, The Main Street, Village' and so on until an exhaustive list was obtained of all properties on a particular street which had been identified as flood affected by the council on the original list.

This procedure was used for all locations on the original list until a second comprehensive record of over 1600 properties was finally developed which included all locations and houses specified originally. This became the master list. However, concerns remained over accuracy of the master list. The risk was that some properties not flood affected may have been added simply because the original list did not specify where on a particular street or road the water stopped. For example, a road (i.e. 'Puddle Road') may have been stated as

affected on the sampling frame but in reality may have only been flooded up to number 15 of 30 addresses. But the original list may simply have stated 'Puddle Road' affected. Therefore the researcher had no real way of knowing what house were and were not affected so the master list had to include all 30 properties on 'Puddle Road' to ensure she did not omit anyone. This meant that business properties were also included at this stage as well as potentially unaffected houses.

A randomly generated sample of 250 properties was chosen from the master list of 1600 to test the accuracy of this revised list. This was done using Microsoft Excel, which assigned a random number between 0 and 1 to each address and then sorted the list into ascending numerical order. This had the effect of 'mixing up' the addresses list (which was in batches of same-location addresses). This random list was then re-assigned a number between 1 and 1600 in sequence and a copy of these numbers was placed into a non-see through container. The researcher asked a member of the university staff to select 250 numbers, one at a time, without looking into the container. The container was shaken after every selection and the researcher double-checked that all numbers had equal chance of selection by ensuring no slips of paper were stuck in the corners of the box. Each number drawn corresponded to an address on the randomised Excel database list and these 250 properties were used to pilot the questionnaire.

5.5 Questionnaire Design

In this section the design and development of the questionnaire, the sections within it and the accompanying cover letter to describe the process the researcher undertook is discussed. Constraints and problems are also discussed throughout. The questionnaire was divided into two main sections and these will be explained in greater detail starting with Section One and proceeding to Section Two. A copy of this is provided in Appendix C. Conclusions drawn from this study are detailed at the end of this chapter.

5.5.1 Questionnaire – Section One

This section contained seven demographic questions. The first question concerned the property that the questionnaire had been sent to and was designed to discover if the address was a business or residential property. If identified as a business property the address would be duly removed from the research and if required a letter explaining the removal to any interested business resident would be sent. However, not one of the 250 questionnaires distributed were returned from a business property so this was not an issue.

Questions two and three in conjunction with question four were designed to establish which part of the county the respondent lived in, had they been flooded at that particular address and to identify where the floods may have been more severe. Respondents were asked to indicate the region they were living in currently (i.e. where the questionnaire had been sent to) or the region they lived in during the Easter 1998 floods. This third question was so that affected persons who may have moved but stayed within the county were also offered opportunity to participate if they wished.

Question four then asked respondents if the floods had affected them or their property. This direct question was to ensure that respondents who had witnessed or knew people who had

been affected were distinguished from those who were directly relevant to the research. Therefore, only those who had been directly flood affected should reply to the questionnaire.

Question five was designed to identify those respondents who were bill payers or homeowners from hose who rented. It was hypothesised that home owners or those with greater financial investment in the property would be more concerned about its welfare and any subsequent damage as they had a vested interest in it.

Questions six and seven were age and gender demographical questions with pre-categories in the age question for respondents to select a general band rather than specifying their age. This was because some people in the focus groups were reluctant to give their exact age (usually women or slightly older participants).

At each question the respondent was given direction as to which question they should proceed to depending on their answer (i.e. in the form of 'Please go straight to Question 4'). The section ended by thanking the respondent for their time so far and a reassurance that their responses so far would be used anonymously and if they required a copy of the findings to please tick a specific box. A request was also made for the respondent to fill in their name and address so that their details could be removed from the database if they so desired. A name was requested in case of any further confusion or problems so that the researcher could deal personally with the individual. Respondents were then asked to return the questionnaire, with no further questions answered, to the researcher in the freepost envelope provided.

5.5.2 Questionnaire - Section Two

Section Two was only for respondents who answered 'yes' to question four in section one (regarding if they were directly flood affected). This section was separated into two parts regarding the physical (or objective) and non-physical (or subjective) losses that may have been experienced. The terms physical and non-physical were used in place of objective and subjective as it was felt that respondents reading the questionnaire for the first time would be more familiar with these words.

The respondent was directed to think about the flood and what they may have lost as a direct result. Examples were given of what a physical and non-physical loss might be to ensure respondents were aware of the difference. This was because a verbal clarification could not be given and the researcher was aware that these were complex terms that may not be understood by everyone. Hence the risk of bias introduced by these explanations and examples was deemed acceptable based upon the probability that confusion could occur if none were given.

Respondents were also directed to rank any losses within the two categories (up to a maximum of ten items) in order of importance to them personally. This was so that the researcher could determine if any pattern of losses typically regarded as more important and than others could be observed. Therefore, enabling the researcher to direct questioning at the next stage of the study in a more appropriate and relevant manner.

At the end of section two of the questionnaire the respondent was asked if they would like to be contacted again for participation in a qualitative interview, if they preferred not to be contacted at all, or if they wanted a summary of the findings. If they did not wish to be contacted again they were asked to provide, if possible, a reason for this decision. This was so the researcher could be aware of any potential problems for the next study, such as not being flood-affected, emotional reasons (such as anger or distress) or non-interest. Again respondents were directed to return the questionnaire in the freepost envelope and thanks were given for their help.

5.5.3 Cover Letter

Each cover letter contained full details for the researcher should anyone wish to contact her for further information. The letter started with a simple question – 'Were you affected by the flooding of Easter 1998 in Northamptonshire?' - designed to elicit both interest in and clarification of the letters contents. The letter continued in a formal manner with 'Dear Sir/Madam' used to show that the researcher was both professional and courteous and concluded with a personally written signature on each of the 250 letters.

The main section of the letter covered identification of the researcher, why that particular property had been selected, the research interests, guidance on how to complete the questionnaire, what the questionnaire data would be used for, requesting further assistance in interviews, assurance of confidentiality and anonymity and reiteration of the offer of further information if required. A freepost envelope was also enclosed ensuring that respondents did not have to cover any costs and as a gesture of goodwill for their assistance.

A request was also made for all residents contacted to return the questionnaire, uncompleted if necessary, with indication that they did not wish any further contact. The 250 addresses were removed from the master list database as void for further use to ensure that inappropriate communication was not made. The researcher only contacted those who expressly agreed to further contact via return of questionnaire. The reminder letter was sent to each of the 250 properties four weeks after initial contact had been made. No further contact was made after this.

5.6 Ethical Considerations

The researcher was extremely aware that she was initiating contact with people in their own homes who may not wish to participate or who may take offence at being sent a letter requesting participation. Therefore, the covering letter specifically contained reassurance that their address would not be used again without their consent and that all details held would be strictly confidential.

Each letter had both the university and Northamptonshire county council official letterheads on it with full contact details for the researcher should anyone wish to contact her. Again, full awareness of what the research was for and how respondent's comments would be used, including total anonymity assured, was stated clearly and all other ethical considerations were as those previously outlined in Chapter Two.

5.7 Results and Discussion

In this section discussion will centre upon the results from Section One and Section Two of the questionnaire, the constraints and how this study was valuable for development of questions in Study Three.

5.7.1 Section One - Demographics

The researcher received 82 replies out of 250 questionnaires posted which was a response rate of 33% which was taken as good particularly when the event occurred some years previously. This indicated a strong interest still in this issue, which was reassuring as concerns did remain regarding the length of time that had elapsed since the Easter 1998 floods and the research saliency to affected persons.

Missing data was a problem in this study as many contacted (68% of replies received) indicated that they had not been affected by the floods of Easter 1998 in any way, had not been living in Northamptonshire in April 1998 or the researcher received unopened letters indicating no contact had been made at that address. But some did choose to answer questions randomly, indicating perhaps misunderstanding of the instructions given at each stage of the questionnaire. This meant that the data had to be cleaned of these respondents before it could be investigated further.

Of these 82 replies, 80% were from residential properties and 4% were from properties where the respondent lived and worked. The remaining 16% were respondents who fell into the 'Not Affected or Not Contactable' category previously outlined. Response rate was approximately one third male to two-thirds female.

Most responses received were from Northampton (23%), East Northamptonshire (10%) and South Northamptonshire (30%). This correlates with the proportion of addresses from each area to which the questionnaire was sent. 21% of replies stated that they were not living at the address the questionnaire was sent to during the Easter 1998 floods. When questioned further 12% indicated that they did not live in Northamptonshire at all during the Easter 1998 floods.

Overall, only 27 questionnaires were received in which the respondent indicated that the Easter 1998 floods had affected them. This meant that of the 33% response rate overall (82/250), only 33% of those had been flood affected (this is approximately 11% of the 250 questionnaires distributed). This low flood-affected rate confirmed previous concerns regarding the accuracy of the sampling frame obtained and provided evidence that use of a questionnaire was not the best method to continue the research.

Of those 27 respondents who indicated that they had been flood affected, 16 did not wish to be contacted for any further interviews although many supplied additional information indicating what they had lost or why they did not wish to be contacted any more (such as having already participated in a survey previously or that it was too distressing for them to give this issue any more thought). Therefore, only 11 persons out of 250 initially identified as flood affected gave permission to be contacted for in-depth interviews. This extremely

low rate was taken as confirmation that use of a questionnaire was not the best method available to obtain research data.

5.7.2 Section Two - Loss

This section is concerned with discussion relating to the type and variety of losses reported by flood-affected participants. On the questionnaire respondents were asked to think specifically about the Easter 1998 flood event and what they felt had been lost as a result of it. The researcher provided clarity between the two main types of loss under investigation, but did not use the terms 'objective' and 'subjective' loss rather 'physical' and 'non-physical' loss was used. This was because of concerns relating to the use of complex or potentially confusing terminology as previously discussed.

In each section respondents were asked to rank their losses in order of importance so that any pattern of perceived importance could be obtained. This was done so that questioning in study three would include all of the most important losses as stated by previous participants. No discernable pattern of hierarchy of losses could be identified as losses varied from resident to resident. However, a reasonably comprehensive list of items lost was developed which supported previous findings.

Respondents were also advised that they did not have to fill every box as ten spaces were allocated per section but it seemed that for the most part this space was simply inadequate for most people as many wrote extensively, even writing full pages of text on their experiences on the back pages of the questionnaire.

5.7.2.1 Objective Loss

Physical losses stated could be categorised into seven broad themes, electrical equipment, personal effects, vehicles, fixtures and fittings, furniture, garden related and miscellaneous items.

Electrical Equipment was mostly items that would normally be found in the kitchen, living and dining rooms of the home, typically located on the ground floor. Large kitchen appliances highlighted were items such as cookers, refrigerators, computers, fridge-freezers, TV's and video-recorders. Smaller items such as music systems, cameras or coffee makers were also detailed.

Personal Effects covered a variety of items both specific to the individual or were able to be generalised across many respondents. Books, photographs and music were often reported as damaged. China, pictures, comics and general keepsakes were also stated. Vehicles lost or severely damaged by floodwater included cars and vans. Fixtures and Fittings were smaller household objects such as carpets, tablecloths, ornaments, cooking utensils and curtains. Furniture specified was three-piece suites, dining table and chairs and cabinets or wall units.

Garden losses were common and heavily reported with items such as garden furniture, sheds, power tools, spare parts held in storage, the plants and shrubbery. Miscellaneous items were those, which did not fit within the general categories developed. This included

bee colonies, food, boilers, Christmas decorations and service pipes damaged awaiting repair.

Some respondents simply stated the items lost 'Books, photos, pictures, carpets, vacuum cleaner' (Study Two, Respondent 5) whereas others wrote pages of commentary about their experiences (Study Two, Respondent 24). Some described items lost within the context of the situation and in the aftermath, 'My car, my van, furniture, electrical appliances, electrical tools, camera. I had to carry on living in the damp after the floods (I had nowhere to go to). I took a year to get over the shock of what happened' (Study Two, Respondent 9).

Some were not directly affected but experienced inconvenience to their daily routine, travel arrangements or in the locale. 'My personal problem was access to the village – the A5 was flood. The road further down from me was flooded. Restricted access!' (Study Two, Respondent 1), 'Loss of trade to area, loss of accessibility' (Study Two, Respondent 17).

Many recalled losses after three years of smaller items such as spare parts, timber, electrical tools and tablecloths (Study Two, Respondents 14, 50 and 58) indicating that memory recall on this event appeared to be good. However, one woman in her 90's did state that due to her age she could not remember everything that had been lost (Study Two, Respondent 60).

Some attempted to explain their losses as having a lesser impact. Respondent 16 stated 'Garden flooded, but only minimal damage to garden shed and tools/equipment' and 'In garage – loss of some timber and elect tools. Cost under £100' (Study Two, Respondent 58).

Many framed their losses in terms of the significance or meaning associated with that item. Photographs collected since marriage (Study Two, Respondent 41), music, books and comic collections that were extensive and perceived as irreplaceable (Study Two, Respondents 11, 62, 66, 72 and 82), items given to them by loved ones since deceased or relating to the deceased (Study Two, Respondents 62 and 82), items collected from travels over many years (Study Two, Respondent 73) or those that had secondary value (Study Two, Respondent 14 describing a Ladro ornament, Respondent 62 describing a table top oven for the children to use at university – now no longer an option or Respondent 66 detailing books from childhood).

Many physical losses were also described in terms of the upheaval, repairs required or mess that was left behind. Respondent 31 stated that her curtains had to be cleaned; Respondent 33 stated 'I lost no personal possessions only some furniture kitchen, carpets. It was the mess after having to have walls plastered and new floors it took about seven months to finish.' Respondent 66 detailed a gas pipe that remained damaged for two months, whereas Respondent 73 stated '...Also at that time I was having a £17,000 extension. It was half built' indicating the additional and less obvious physical losses that were experienced due to the flood. Respondent 80 highlighted the damp that was left in the house after the water was pumped out and that the gas boiler had to be moved to protect it in case of further flooding.

Some losses were reported which the researcher did not expect. Items such as the loss of three colonies of bees kept in the garden, garden shed storage equipment and spare parts (Study Two, Respondents 50 and 82). Perhaps most tellingly of all one respondent, when asked what physical lost he/she had experienced simply stated 'House' (Study Two, Respondent 68) indicating the devastating and all-encompassing nature of the flood for some people.

5.7.2.2 Subjective Loss

Non-Physical losses were more abstract and less tangible in nature. These seemed to be loosely grouped into four categories, internally subjective, externally objective, time and miscellaneous. Internally subjective were items such as loss of self-esteem, feeling of abandonment, lack of optimism, poor perceived levels of safety or security, loss of trust, confidence, self-respect, happiness, peace of mind and sense of control were all reported.

Non-physical losses, which had physical repercussions, were items such as lack of sleep, access and travel constraints, loss of usual household services, financial impact, poor health, lack of privacy and normality (through a feeling of chaos and upheaval), distressed pets and family members, relocation, marital strain, dispersed communities, lack of faith in authorities and perceived feeling that the flood somehow contributed to the death of a loved one.

Some items reported were grouped together under the category of Time and included time taken to deal with paperwork, time that the flood took out of their life, time spent watching the weather and worrying about it and time spent going to meetings. Finally some items reported did not seem to belong in any of the other categories and these were concerns regarding poor drainage and anger towards various others. This last miscellaneous category is perhaps the most confusing as although every respondent was asked to think about non-physical losses, the issue of drainage is clearly a physical one (and an issue raised by more than one respondent) and the concept of anger was described in terms of something experienced because of the floods rather than something lost.

Those losses which were more internally experienced than perhaps objectively concurred ranged from one word answers, 'Normality' Study Two, Respondent 64 and 'Trust' Respondent 61 to fuller answers given by Respondent 24 regarding the background to why they have stated certain losses.

'No privacy, people from gas, telephone, electricity etc, all coming in checking. Council workman taking all your things to the tip. I have lived here since 62 never anything like this has happened before. I moved out in April and couldn't move back in till Dec when work was completed. Lost count of the men from the building firms in and out. Every time we have a lot of rain, we are looking and watching. There was no normality for over a year to anything. I was under the doctor for a while. My cat had to be moved with me, (he's 18 now) to my daughters. Going to meetings with the council etc, and public meetings. A lot of people lost tempers and shouting people were so angry. Nobody who hasn't been through a flood has any idea of what it was, (or is) like. I live facing a park, it was just like a lake, all this water, rubbish, grass etc coming into your house, complete with sewage, the smell was awful. You were just helpless, unable to do anything. Lights, gas and telephone

cut off. It was the early hours of the morning and being on your own was very frightening. You had neighbours, but they were in the same state as yourself, we couldn't help each other, just had to sit and wait until day break on that Good!! Friday. Families and the public services came to evacuate you, but I refused to leave my home, so I was the only one left, my two nephews got through to me, one of them stop with me until Saturday, my son also got to me, they brought me a camping stove, tins of soup, a mobile phone, so we were quite cosy, my niece arrived Friday teatime with fish and chips for everyone and a portable battery T.V. (from her friends caravan). The water disappeared too quick. (After they opened the flood gates). Saturday morning 8.30 my daughter drove up in her car, asked where was the water? But the aftermath, what it had left was heartbreaking – I had been married over 40 years, my husband died the previously Oct' 97, so everything we had brought and shared was gone and couldn't be replaced' (Study Two, Respondent 24 - All spelling and punctuation as original).

Respondent 24 detailed why she felt that no one who had not experienced a flood could possibly understand what she had gone through and detailed a range of other losses both subjective and physical in nature. This example does illustrate how intertwined the losses experienced can be and how the situation itself can be viewed as one whole event described in terms of a series of smaller interconnected incidents. Respondent 24 indicated that there were some small highlights of the situation. Her commentary regarding why she would not leave her home and how she coped is described in familiar and comforting tones. But overall the feeling is one of overwhelming and irreplaceable loss.

Generally these non-physical losses were described in terms of how they impacted upon the individual personally. Words such as 'upheaval', 'dramatic', 'worry', 'devastating' and 'panic' were all used to describe feelings at the time or subsequently (Study Two, Respondents 11, 8, 31, 41 and 67). The floods themselves were viewed as events that threaten the individual's safety, well being and even sanity (Study Two, Respondents 5, 31, 66, 68, 73 and 82). The floods produced a situation that was shocking, created deterioration in the marriage, produced job losses and contributed to a feeling of lack of self-respect and happiness (Study Two, Respondents 9, 68 and 62).

There is also a strong element of blame at authorities in terms of fault, lack of support and anger. Respondent 5 stated the losses experienced as 'Sense of safety. Feeling your home could be worthless. Anger because drainage hadn't been maintained in our area.' Respondent 11 describes her feeling of abandonment by others '...The sense of being totally neglected when there was 4ft of water in my living room.' Respondent 31 described concerns regarding maintenance, 'I am always concerned during heavy rains as my courtyard was again flooded after a summer storm. The manhole cover outside my gate lifts due to pressure of water. The drains in the village aren't cleaned on a yearly basis. I have expressed my grave concern about this matter. But have had no response and I am very worried about the coming winter.' And Respondent 72 stated '...faith in local authority (council).' However one respondent did state that the drainage system in that area had been repaired and as a result there was no more flooding (Study Two, Respondent 58).

There is a longer-term implication here also. The flood effects continued to bother the individual some time post-flood both in a physical and psychological manner. 'I

experienced having no electricity for several days and afterwards felt a great loss of certainty, i.e. I realised how the elements can have a dramatic effect on us all and we are virtually powerless to control these elements' (Study Two, Respondent 8).

'In an effort to save a piece of furniture I attempted to carry said furniture upstairs, the waters at the time had reached a depth of 4½ feet. Unfortunately I cracked my spine in the process and have had trouble ever since' (Study Two, Respondent 14).

'Peace of mind. My four cats and myself I was very frightened and so were the cats. I get very worried when there 2 or 3 days of heavy rain. Security. Having to leave my home at weekends. It felt very strange almost not like my home for a long time' (Study Two, Respondent 66).

'The feeling of panic when it pours with rain. The sense of loss of things I lost which are irreplaceable' (Study Two, Respondent 67).

'After 3 years you forget what you went through you think of it when it rains a lot' (Study Two, Respondent 33).

'Sense of safety – worry whenever the weather is bad' (Study Two, Respondent 82).

'It was devastating the feeling will always be there. The home feels different now it was worth for me, as my husband was very ill with Parkinson's, I hope it never happens again' (Study Two, Respondent 41).

'1 year of my life' (Study Two, Respondent 11).

5.8 Conclusions

Several issues arose from data received in Section One of the questionnaire. Firstly, the questionnaire had limitations in order to retrieve flood related data as the event had occurred (at the time) several years previously and some respondents (3 counts) indicated they found it difficult to remember the details of what happened. Although there was concern relating to accurate data collection due to poor memory recall, responses received confirmed that this was not an issue as the majority of responses indicated that they remembered the event and their losses clearly.

This study confirmed that the sampling frame was not accurate and the researcher felt she could have retrieved the data obtained via other means. However, the questionnaire did confirm previous concerns relating to community dispersal and relocation post flood and the suitability of qualitative interviewing to obtain the required information.

Answers received in response to Section Two confirmed the scope, variety and nature of losses both objective and subjective were similar to those found in Yorkshire. This was especially encouraging as it indicated that post-flood losses might be more generalisable than previously thought and that subjective loss was indeed a key issue post-flood. Subjective losses were described in terms of meaning, perception and framed within a

wider context and often were described using more emotive language than the physical losses.

Overall, this study reinforced the need and value of a qualitative methodological approach to retrieve answers on complex and potentially sensitive issues. It confirmed a strong similarity between different locations in the types and variety of post-flood losses experienced as many of the losses stated were similar or exactly the same to those reported from the Yorkshire participants previously. Furthermore, these losses were clearly distinguishable between objective or physical losses and those of a more subjective nature indicating that flood affected participants did note a difference in the type of loss sustained.

6.0 Study Three: Northamptonshire Interviews

6.1 Introduction

In this chapter the third study included in the research project is described. This involved individual interviews conducted in Northamptonshire between November 2001 and August 2002. The aims and objectives of this study are outlined below. The criteria for participant selection and an overview of the interviews are included. In particular, the need to address the issue of some participants becoming distressed during the interview is discussed. Finally the interview findings are presented, analysed as before using Hobfoll's COR model (1989), Lazarus and Folkman's 1984 appraisal theory and the coping categories developed from Carver, Scheier and Weintraub, 1989, Smith, 1996 and Freedy, Shaw, Jarrell and Masters, 1992.

6.2 Aims and Objectives

The overall aim of this study was to determine whether previous findings relating to the use and applicability of the two main models and coping codes used in the research could be confirmed.

The specific objectives were:

1. To assess whether findings collected in interviews from Yorkshire could be compared and confirmed with findings from Northamptonshire, despite different locations, events and population affected.
2. To examine in greater depth the concepts of subjective and objective resource loss experienced by flood-affected participants in Northamptonshire.
3. To elicit more in-depth information relating to how participants' coped with the various aspects and losses within the flood event.

6.3 The Participants

Participants in the first part of this study were self-selected as at the end of the questionnaire distributed for study two, respondents were given the option to be further involved in the research. They were also reassured that no further contact would be made by the researcher unless permission was given. Respondents were asked if they would like to be interviewed about their experiences and if so to provide contact details for the researcher to write to them about the next stage of the research. Out of 250 questionnaires distributed for study two, eleven respondents agreed to further contact and to be interviewed in-depth about their flood experiences.

These respondents were sent a short letter thanking them for their offer to assist the researcher in her project and outlining the next stage of the research. A brief overview of the interview procedure, duration and reassurance regarding anonymity was also provided. Potential participants were invited to contact the researcher via telephone, if they were still interested in being interviewed and the researcher arranged a suitable time and date.

Eight participants left their telephone number, were contacted and thanked for their continued participation and interview dates and times were arranged. A pre-interview telephone call was made to each to confirm the interview twenty-four hours in advance. Five respondents from the original eleven who agreed to be interviewed were un-contactable.

Post-interview the researcher sent a short letter to the six individuals who participated thanking them once again for their help. This letter also thanked them for their trust and openness during the interviews and asked if any participants had friends or neighbours who may be interested in being interviewed to please forward the researcher's contact details to them.

It was decided that another mail-shot to properties from the sampling frame was required to generate more participants. The researcher also considered the use of door-to-door leaflet dropping in known flood affected streets but this was discounted for two reasons. Firstly, several weeks of 'door-stepping' would be extremely time consuming. Consideration was given to the use of others to assist in this leafleting but there was no budget for this to compensate them for their time. Secondly, the researcher did not want to interview people from a limited number of streets known to have been affected within Northampton only, as the research was to examine Northamptonshire as a whole if possible.

A random list of another 250 properties was generated (method used as previously discussed in Chapter Five) and a speculative letter explaining the research and how residents might be able to help was distributed (Appendix D). A freepost envelope, as before, was also provided for ease of reply. Out of 250 distributed 66 replies were received and of those seventeen agreed to further contact with the remaining 49 declining due various reasons such as having not been flooded, not living in the area at the time and or because they wanted to put the past behind them. Further participants were contacted via these interviewees.

The researcher made every effort to secure thirty separate interviews but was only able to finalise twenty-four. Twenty-nine people in total were interviewed at this stage as some interviews were with couples or two friends who had both been affected and four more people were contacted but had to be withdrawn due to lack of a mutually agreeable interview date.

Many interviewed were keen to recommend friends or neighbours who had also been affected with one participant going as far as to actually walk with the researcher to several houses soliciting help in the research! One aspect the researcher did not count upon was replies from people agreeing to help that had not actually had floodwater on their premises. Many wanted to 'help' the researcher even though they did not fit the criteria outlined in the letter sent to them. It became evident that some potential participants had not actually directly experienced the floods themselves and these were thanked for their interest but withdrawn from the research before interview. The relatively low response rate was again attributed to the inconsistent sampling frame and the fact the event had taken place some four years previously.

6.4 The Interview

A semi-structured interview technique was used as before with discussion lasting no more than an hour but on average it was between 20 and 50 minutes. All ethical considerations and interviewer technique matched those taken at previous stages in the research and this information is not duplicated here. Generally, the interviews proceeded smoothly with much interest in the research and the use of the findings being discussed off tape. Some participants were less vocal and required more directed questions whereas others were extremely talkative and told their 'story' almost uninterrupted covering all the areas of interest for the researcher. The researcher asked questions about the flood event, the timeframe of events, the nature and type of losses experienced their personal perceptions of the event and how they coped in line with previous interview themes. Sometimes these topics arose naturally in conversation and others they had to be asked directly.

Several times participants began crying and the tape was turned off and the participant asked if they wanted to continue. This appeared to be as much of a surprise to the participants as it was to the researcher because it had previously been felt that after four years much of the impact of the floods and the after effects would have gone. This was clearly not the case. After the first experience of a participant becoming distressed the researcher was herself deeply concerned about the possible effects her research was having upon those she interviewed and if she was handling the situation in the correct and ethical manner.

After taking advice, it was agreed that the researcher had managed the situation properly, but that perhaps subsequent interviews should clearly warn participants of the potentially distressing nature of the research. It was made aware to all those who became upset that a number for a counsellor they could speak to could be passed on to them if they felt they would benefit from this. All declined.

Interestingly, all of the participants who did become visibly distressed afterwards off-tape, thanked the researcher for the opportunity to talk about their experiences and felt it had been in some way cathartic. Many relished the opportunity to talk about their feelings, experiences and views and several felt even though it was distressing for them, that they could in some way help others by imparting this information to the researcher.

6.5 Level One Coding – Resources Analysis

6.5.1 Object Resources

Discussion centred on object resources mainly focused on items lost and items used to counter loss. Reported Object resources lost grouped into ten main categories. Items lost included furniture, fixtures and fittings (such as units and carpets), electrical items, vehicles, sentimental items, accommodation (including both the original property affected and temporary accommodation used), structural (such as floors, doors or joists) and specific rooms in the house were detailed (kitchen, bathroom and living room being the most frequently cited). Many reported a disruption in services to the house such as gas, electricity, water and telephone and finally several discussed the losses incurred due to damage to their gardens.

Furniture was lost not just due to floodwaters but also because of looting. Several participants stated that they had items go missing (Interview Six and Interview Nine, Study Three) presumed stolen. However, as one participant stated '...you heard stories about people looting empty houses and that sort of thing...ok I moved the important things TV, microwave, but nothing really worth breaking in for. I'd already lost enough to worry about that' (Interview Twelve, pp. 3, Study Three). This was concurred by another participant who said 'But at the time I wasn't really worried about anything that was in the house anyway 'cause as I say there was nothing much left to take anyway' (Interview Fifteen, pp. 6, Study Three).

Electrical items appeared to be valued greatly as many participants, upon realising they were flooded or about to be flooded, attempted to move television sets, videos and stereo equipment out of the path of the water often with mixed results. One gentleman, who reported fracturing his spine whilst attempting to carry a television set upstairs (Interview Six, Study Three). Another tried to carry the video player upstairs but realised as it fell from his hands and into the water that it was still plugged in (Interview Five, Study Three) and yet another participant stated that if there were a 'next time' he would be quick to move his electrical goods first as a priority (Interview Twelve, Study Three).

Other object resources lost were smaller items such as books, videos, photographs, teddy bears, shoes or records and items of sentimental value or special significance. Within this latter category participants discussed a bible given by parents when the participant was fourteen (Interview Eight, Study Three), a home video of a participants son aged five which was irreplaceable (Interview Fifteen, Study Three) and several small ornaments each worth no more than a couple of pence (Interview Five, Study Three). It was these losses, which seemed harder to bear. At the end of Interview Five discussion off-tape continued on the subject of what was worse part of the whole event. He began crying when he related the story of how his children, with their first paycheque, had each bought a small gift for their mother and these had been lost. He admitted that they were worth nothing in financial terms but that their loss could not be replaced (Interview Five, off-tape, Study Three).

6.5.2 Condition Resources

Participants did discuss their health, both physical and mental, at the time of the floods often to 'set the scene' of the event within a wider context of what was going on for them. This was perhaps to validate or reinforce their story in some way as if to say not only were they dealing with the floods but others issues as well. 'It was a very, very bad time for us within that couple of weeks my dad had just been diagnosed with terminal illness my husband had been made redundant and then we had flooded and those three events happened within a fortnight of each other. So it wasn't just the flood I was dealing with all my attention went onto the flood. It was relative to what was going on as well at the same time' (Interview Twenty-Two, pp. 5, Study Three).

Medical conditions discussed ranged from hernia or stomach operations prior to the flood affecting ability to cope (Interviews Five and Two, Study Three), mastectomy shortly after the flood adding to the impact of negative events (Interview Four, Study Three), extreme cold during the floods (Interview Eight), blood poisoning from the water (Interview Twenty-Three, Study Three), the level of exhaustion (Interview Nine, Study Three) and

being physically fit enough to keep working at protecting their property (Interview Eighteen, pp. 4, Study Three).

Interview Four felt that 'the wear and tear on your nerves' was one thing that could not be easily replaced as although she had been able to recover losses through her insurance company she believed 'you can't get money for your health' (Interview Four, pp. 13, Study Three). Another participant felt that the event was 'quite traumatic...very traumatising' (Interview Twenty-Three, pp. 11, Study Three). And yet another said that the floods put him 'under more stress' than he had been under previously (Interview Twelve, pp. 4, Study Three). The floods were hard for one participant in particular who found it 'draining, not only emotionally...but it was very hard work' (Interview Two, pp. 3, Study Three). She even went as far as to confide that she had been prescribed tranquillisers as she 'was close to a nervous breakdown at one point' (Interview Two, pp. 4, Study Three).

Health was also discussed within a slightly different context, that of hygiene regarding the smell of the water (Interview Four, Study Three), the level of contamination that kitchen utensils and foodstuffs could have been exposed to (Interview Five, Study Three). One participant put it 'you start worrying about tetanus and hepatitis and things after that and what might have been in the water to make it that colour!' (Interview Eight, pp. 11, Study Three).

One participant was acutely aware of the level of danger the floodwater could hold such as germs, which may have caused coughs, colds and sore throats (Interview Four, pp. 11, Study Three). She also expressed concern that builders had not been given adequate protection against this and felt that overall 'you didn't know what you were dealing with, you know, it was sewage and everything else' (Interview Four, pp. 11, Study Three).

Relationships and level of support they offered were important to participants. The participant in Interview Two felt her husband was actually working against her when she tried to get solicitors help in taking legal action against the council. She wrote 'reams on an A4 pad' about what had happened but that it had 'disappeared' concluding 'I have a feeling my husband might have taken it away!' (Interview Two, pp. 5, Study Three). Others felt unsupported by their marital relationship because their partner was not even in the country. 'I remember thinking 'I think my husband should get back here I need a bit of support here' which is just typical of him, never here in an emergency when I need him' (Interview Twenty-Three, pp. 7, Study Three).

One woman's husband had died prior to the flood and in an attempt to move his favourite chair upstairs, finding that it was becoming stuck, she shouted out 'Is somebody gonna help me?' (Interview Four, pp. 2, Study Three). She then felt as if the chair actually moved up the stairs almost on its own accord which she suggested might be due to her husband being there with her in spirit helping in some way (Interview Four, pp. 3, Study Three). Another couple felt that their relationship was unaffected by the floods as they 'work as a team' (Interview Sixteen, pp. 8, Study Three) and this was agreed with by another participant who felt she and her husband 'just stuck together really, I think we just supported each other' (Interview Twenty-Two, pp. 5, Study Three).

Some did not live with anyone and actually saw this as a bonus. In Interview Fifteen the participant was separated from his partner and son who used to live at the house that was flooded. Not having them at the house during the flood he felt was a distinct advantage. 'I think if the whole family had been here it would have made it worse because you know, just myself I could deal with the problem but when you've got other people to deal with I think it just naturally makes it harder because you automatically worry for the other people in the house, how they're coping with it' (Interview Fifteen, pp. 5, Study Three). Another participant also agreed with this saying 'I didn't have to worry about anybody else but me. I didn't have anybody else panicking or worrying or hysterical or whatever' (Interview Twenty-One, pp. 6, Study Three). One gentleman whose wife had died prior to the flood was glad that she had not been there at the time of the floods as she would have been upset although he did state that two heads dealing with the flood would have been preferable to one (Interview Nine, pp. 4, Study Three).

The floods did place some marriages under considerable strain as Interview Five demonstrated. The inability to find out what had happened and why was immensely frustrating for this gentleman and he admitted '...it caused a problem between the wife and I. You ask each other questions about what's happened, whose fault was it? And you can't give each other an answer...you can't give an answer and it becomes very frustrating. And it causes friction. It sounds silly but it did cause friction...' (Interview Five, pp. 3, Study Three).

6.5.3 Personal Characteristics Resources

Personal traits and skills were discussed or were evident by implication throughout the interviews and these appeared to have had some impact on resolving their situation to a greater or lesser extent. The ability to remain calm, focused and practical appeared to be an asset towards solving the ongoing problems in the post-flood period (Interview Two, Four and Eight, Study Three). Some demonstrated a strong pro-active and determined attitude towards trying to resolve the situation (Interview Fourteen, Eighteen, Study Three).

There was mixed debate regarding how optimistic participants could be both during and after the flood but some did manage to find something to be positive about the flood (Interview Fifteen, Twenty-Two, Twenty-Three, Study Three). Although some said that the chance to redecorate their house, for example, was not so positive that it outweighed the experience of being flooded and would not chose to do it again 'Yeah I mean everything in the house is a lot nicer than it was before the flood. An awful lot of hardship to go through for that but that was a positive thing about it' (Interview Fifteen, pp. 9, Study Three).

There was a level of acceptance with the event itself and that it was something that had occurred and that one must acknowledge this and move on (Interview Fifteen, Twenty-Two, Study Three). Many sought answers as to why the event had happened and how it could have been averted then or in the future indicating a level of analytical thinking and inquisition about the situation (Interview Eighteen, Twenty, Study Three). There was also a strong sense of justice seeking evidence, sometimes related to appropriation of blame sometimes just out of a desire to ensure the same situation never happened again (Interview Thirteen, Seventeen, Study Three).

One participant was surprisingly accommodating of media questioning (Interview Four, Study Three), many demonstrated adaptability to the new and often-unfamiliar situation they found themselves in (Interview Twenty-Two, Twenty, Sixteen, Study Three) and had a sense of responsibility to others by wanting to pass on knowledge and their experiences (Interview Seven, Twenty, Study Three). A sense of humour was also evident throughout many interviews with participants recalling of humorous events that had occurred (Interview Four, Five, Eight, Study Three). Some had strong levels of understanding for others in similar situations either during the flood or through media reports of other flood events (Interview Seven, Eight, Study Three). Here there seemed to be a level of recognition of what the other person may be experiencing and an empathy with that.

Some found that an assertive streak helped them deal with the floods (Interview Eight, Twenty-Three, Study Three) and others were very independent preferring to try and deal with the situation on their own (Interview Eight, Study Three), and some actively sought help from whatever source was available (Interview Six, Seven, Study Three).

6.5.4 Energy Resources

Damage to fixtures and fittings and the property structure were to be expected given that the water had entered the house on the ground floor, remained standing for some time and that the damp took some time to dry out. However, the extent of the damage the flood water would cause was not appreciated fully as many said that repairing their house took far longer than anticipated due to time taken to wait for the house to dry out or time needed to rectify secondary problems (Interview Two, Four, Five, Study Three). Delays were sometimes attributed not only to waiting for plaster to dry out but also that the contractors were working on many houses at once limiting the amount of time spent on any one property (Interview Seven, Study Three).

The financial impact of the flood was also clearly evident, although most were covered by their insurance policy and managed to get most or all of their losses recouped. Some participants paid to have work completed or investigated paying for alternative solutions to be undertaken to rectify the problem such as hiring a skip, requiring investment (Interview Two, Twenty, Study Three). Some losses were not covered by insurance such as damage to a car (Interview Nine, Study Three) and some insurance companies caused residents further problems by debating the details of what their insurance actually covered (Interview Twenty, Study Three).

Knowledge regarding what to do to deal with the floods appeared to be dependent upon two main factors – level of useful social support available to get information and prior experience. Some had prior experience of flooding and understood what they were facing and how best to deal with the situation both immediately and longer term (Interview Two, Eighteen, Study Three). Others had never been affected before and felt they had in hindsight, believed they had dealt with it in not the best manner. When discussing her immediate activities one participant said she got up and came downstairs to find water everywhere and her first reaction was to try and soak it up 'So of course I got, stupid now I know that, I got loads of towels I thought '...you can soak it up, soak it up!' (Interview Four, pp. 1, Study Three).

There appears to have been a lack of understanding or awareness about the magnitude of the flood (which Interview Five suggested was due to 'we'd had no warning whatsoever of this', pp. 1, Study Three) and what this actually meant in practical terms to residents and their property. Previous non-flood related experience or alerting activities taken by officials at the time did not seem to have prepared them fully nor given them the knowledge to deal with, or even recognise the event for what it was. Subsequent coping (dealt with later in this chapter) therefore appeared to be reactive and somewhat limited at times as opposed to pro-active and informed.

Awareness was another example of an energy resource, not defined by Hobfoll (1989) specifically but which appears to fit within the Energy Resource category. The difference between knowledge and awareness as resources is that the former relates to 'facts, information and skills acquired by a person through expertise' (The New Oxford English Dictionary of English, 1998, pp. 1018) whereas the latter is concerned with 'having knowledge or perception of a situation' (The New Oxford English Dictionary of English, 1998, pp. 117). In this second case it was awareness of what actually happens in a flood (plaster taking time to dry, level of damage these events can cause or even how cold it will be) or even having the understanding to recognise the signs that a flood is or has taken place '...we hadn't got a clue anything was happening' (Interview Seven, pp. 1, Study Three).

Some participants attempted to gain knowledge regarding the situation and what to do from neighbours, friends and relatives and also to impart information about what had happened to them. '...we rang one friend to say what had happened...and there's one friend who lives in ***** Road and she wasn't quite as affected was just sort of lapping against her step so we rang her...' (Interview Seven, pp. 1, Study Three).

Neighbours also telephoned participants searching for information and to generate an understanding of the extent of the problem 'Of course it all started with a telephone call to me from my neighbour next door...and my neighbour said 'Do you think we're going to get flooded?' (Interview Nine, pp. 1, Study Three). Another stated that after the floods many residents began talking to one another about the floods, comparing notes to find out what others were doing but perhaps not with entirely altruistic motives. 'I think people started talking to make sure that they weren't missing out on something and trying to learn from other people who had gone through it. You know what have you done, who did you ring? How are you making sure you got your money back? What insurance have you got? ...getting opinions really.' (Interview Twenty-One, pp. 5, Study Three).

Others tried to find out what was happening, why and what to do from official sources such as insurance companies, police and county council officials although this was with mixed success. Participants in Interview Six found their insurance company helpful, telling them what to do, but the county council less than helpful. 'The only thing is when we came down the first Saturday morning the council officers had put up in St. Mary's Church rooms and I went in there for curiosity and I said to this lady, 'Are you going to find us a house?' So she opened her arms wide, I mean typical council officer, opened her arms wide, 'Oh we have just put one family up, end of story' (Interview Six, pp. 4, Study Three). These interviewees found their own alternative accommodation instead.

Some were told what to do by officials who tried to dissuade residents from wasting their time with fruitless coping strategies. 'I'm standing at the front door and a policeman comes by advising us...to open our back doors and let the water go through. I said, 'You're joking'. I was...thinking of putting towels around the front door, I mean I didn't realise how deep it was going to be...and he said 'Mate...forget it open your back door'...' (Interview Five, pp. 1, Study Three). It was then the participant realised the level and volume of water he was faced with.

Here the participant tried, as did Interview Four, to solve the problem by usual methods – i.e. water on the ground – mop it up with a towel, not realising the extent of the situation or knowing quite what to do to deal with it. Another participant when discussing the first time she saw the flood water also put down towels and mats to try and soak up the water, thinking it was due to problems with her freezer and then went to bed not realising the gravity nor extent of the situation (Interview Twenty-Three, Study Three). The second interviewee in this discussion also agreed with the notion that she thought the floodwater was due to something more usual and tried to deal with it by also putting towels on the floor. 'I thought 'oh the dishwasher's leaking' so I took the towels from the radiator and threw them on the floor...' (Interview Twenty-Three, pp. 6, Study Three). There was simply a lack of awareness that the water could be anything other than a known cause such as an appliance or water failure because these individuals had not had to deal with a flood and therefore did not seem to recognise what was happening.

6.5.5 Social Support Resources

Social support in general was a resource well used although some found it less helpful than others. Support appears to have come from several sources, spouses or partners, family and relatives, fiends and neighbours, the wider community, officials, contracted persons and the media. This research may begin to clarify what types of social support may be offered or available within a flood situation.

Support was required and obtained from contractors such as insurance companies and builders, from officials such as the police service, fire brigade or county council and the media, particularly radio broadcasts, were highly regarded as good sources of information to find out what was happening. '...the radio was actually still working. I was listening to news bulletins or whatever' (Interview Fifteen, pp. 1, Study Three). Although in this case this was not particularly helpful as he admits 'Didn't hear anything' (Interview Fifteen, pp. 1, Study Three).

Another participant was listening to a local radio station, understood what was happening and had some advance notice of the flood. '...I was listening to the radio, I had Northampton Radio on and I knew I could hear them talking about the river. So I knew that it was, the river was coming up so I knew it must be bad.' (Interview Nineteen, pp. 3, Study Three). The use of media updates on the situation was especially true in the first few hours of the event when little information was known. These examples illustrate the link between some resources within the Conservation of Resources model, in this case the media (a social support resource) providing information (an energy resource) for affected persons.

One participant when asked if his family or friends had been of much help to him in dealing with the floods replied that his family were not much help and he believed they felt that 'dad can get on with it' (Interview Nine, pp. 3, Study Three). Others found that the flood was such a community event that many came to see the water and what was happening but seemed uninterested in offering any practical help, a finding confirming previous data. 'But what did occur that evening was it was obviously a big talking point in the village and a lot of people obviously coming down...in their cars just to have a good nose. Some of them got stranded in their cars some of them hit a level and the cars wouldn't continue! (Laughs). But what it was doing was as they drove through was creating a huge tidal wave throughout the house. So there was a lot of nosing but not a lot of help, no unfortunately' (Interview Twenty-Two, pp. 3, Study Three).

However, others found friends, family and community support very helpful and valuable. Some received support in moving items out of the path of the water (Interview Twenty, Study Three), the physical act of clearing up after the flood (Interview Twenty-Two, Study Three) and provision of resources to help cope during the flood 'Then all the neighbours rallied round one of them gave me a box of candles, I mean I've got candles and everything, a light, another one gave me a...stove' (Interview Four, pp. 4, Study Three). Others just to offer moral support 'Family and friends were wonderful and everybody came round with cups of tea and cakes and things (Laughs)' (Interview Two, pp. 1, Study Three).

6.5.6 Objective and Subjective Resource Loss

Some resources discussed appeared to have a duality of loss associated with them, that is to say, there was a physical loss that may be objectively concurred and a subjective loss perhaps only experienced or evident to the affected person. Therefore, some resources did seem to have been 'lost' twice.

Object resources discussed such as accommodation did illustrate the duality of resource loss. Several participants interviewed stated that the damage to their home the floodwater had caused was not confined to physical loss alone suggesting other losses relating to one resource had also taken place.

Asking the question 'Does your house feel like your home still?' elicited a varied response. One couple disagreed with each other with the husband stating categorically 'No' and the wife stating that for her there was no difference but she knew there was for her husband (Interview Six, pp. 7, Study Three). The husband suggested that there was a lack of the 'old things' he liked and his wife suggested that another reason was that he believed the house to be much colder than it once was and although he was comfortable in his house he can 'never get used to it' (Interview Six, pp. 7, Study Three). Another stated 'Yes I feel safe here but it don't feel as if its mine. You get that feeling in the back of your mind its not like it was you know. It's just somewhere to live sort of thing you know?' (Interview Four, pp. 11, Study Three). One reason given for this apparent lack of feeling like home was '...because 'it didn't look like anything it just looked like a building site' (Interview Eight, pp. 5, Study Three).

Others interviewed stated that they were very happy living in their house but if it flooded again they would have no hesitation moving because the act of coping with the floods,

sometimes repeatedly, was simply more than could be endured. One participant before the Easter 1998 floods had threatened to walk out on her husband if it ever flooded again but because her husband was ill during the 1998 event she felt unable to go through with this (Interview Two, pp. 2, Study Three). Another, although expressing deep affection for her home and stressing the amount of time it had taken to create the home as it had been before the floods, stated 'I could have quite easily moved from here and never looked back...we'd done all this hard work and in a few minutes (clicks fingers) it was just wiped out' (Interview Twenty-Two, pp. 4, Study Three).

These examples suggest that as well as the physical damage the house, a tie or bond with the home had been broken, perhaps irretrievably and that it was simply not worth the effort that coping may have taken to deal with the aftermath of another event. In the case of Interview Two this was because of repeated exposure to flood events. In the case of Interview Twenty-Two it was because the flood had '...stripped the character' out of the house and that her '...heart wasn't in it...' to start all over again and restore the house to as it was before (Interview Twenty-Two, pp. 4, Study Three).

Damage to property within the house necessitated buying replacement items to refurnish the house but this was not an entirely successful experience. When discussing this aspect of the floods one participant stated 'You could never replace anything like you had' (Interview Six, pp. 8, Study Three). She continued by discussing the misperception non-affected people have that after the floods the act of purchasing new items must be enjoyable, something she did not feel '...people said 'Oh aren't you lucky, you know, you're going to have all new stuff' but you didn't feel as if you were lucky you know?' (Interview Six, pp. 9, Study Three). She continued saying that her daughter finally made her go to the shops and choose some furniture but that the had absolutely no interest in doing that saying that '...you sort of just go through the motions' (Interview Six, pp. 9, Study Three). That buying new items had little interest because '...it just didn't seem like your property you know?' (Interview Six, pp. 9, Study Three).

Loss was not confined to the original property damaged in the flood but also when discussion centred upon temporary accommodation used during the renovation stage of their houses. Many participants felt that their temporary accommodation was substandard in some way. A caravan used as temporary accommodation was subsequently found to have been flooded (Interview Five, Study Three) and others who stayed with friends or family found the arrangement unsatisfactory due to reduced levels of privacy because the participant only had one private room in a friend's house (Interview Nine, pp. 3, Study Three) or the participant had to return to their own property if they wanted privacy (Interview Fifteen, pp. 5, Study Three).

Some participants discussed the feeling of being 'a showpiece' to the rest of the community and one couple described residents who came to watch and take photographs of the event as 'sightseers' (Interview Six, pp. 9, Study Three). In this case the damage to the house, an object resource, appeared to have a double loss – both actual physical damage to the house but also a subjective loss of the perceived levels of privacy. This concurred with earlier focus group findings in which participants discussed the issue of residents taking the tractor across town as an opportunity to look into flood-affected properties or where residents

stood in the street looking at the flood and those it had affected (Focus Group One, pp. 3-4, Study Three).

Video cassettes or photographs were also reported as being flood damaged and it seemed that it was not so much the item itself, rather the loss of memories associated with it and the ability to revisit the event whenever they chose, that was harder to bear. 'One of the main items we didn't realise we needed to move was some of the photographs that was in the bottom of the...our units, the cabinets. They were ruined and they were a bit upsetting cause the grandchildren and our children when they were younger, old black and white films, our daughters wedding, video of her wedding which was in Cyprus, we lost that. Things like that which was irreplaceable to us. That upset us a lot...' (Interview Five, pp. 1-2, Study Three).

As another participant said '...the worst thing was that umm...me and my ex have got a nine year old son now and he was, what, five at the time and we'd got a video we'd borrowed a video camera off of various people actually and videoed special events like birthdays and Christmas that kind of thing so we'd got quite a collection of **** (son) growing up you know from quite a young age. And you know we loved watching it, he loved watching it and that was lost and there absolutely nothing we could do about it and that's probably the worst thing. I mean there were some photos and things but they weren't so special as that video' (Interview Fifteen, pp. 2, Study Three).

Another resource that may have had a dual loss was the issue of safety and security. Even after houses had been restored, some still did not feel entirely safe in their homes despite reassurances that flood defence work had been carried out thus improving their physical security. '...there's always the thought in the back of your mind if there's a lot more heavy rain it could happen again although we're assured it won't happen again. And they're now building flood defences all around the town so we should be ok with it' (Interview Sixteen, pp. 7, Study Three).

Long after the after-effects of the flood had been resolved some participants still felt unsafe in their homes. When asked did she keep an eye on the weather and rainfall in the area one participant replied 'Yeah, not so much now but over the past couple of years I've relaxed about the weather. But for the first two years after that I was obsessed about going over the brook and checking it and the level near the top of the arches that we keep an eye on and we call it the trap door...' (Interview Twenty-Two, pp. 6, Study Three). Another participant discussed how the effects of the flood had damaged her perception of 'home' and concluded this loss was because 'you can never be sure, never feel safe.' (Interview Eighteen, pp. 3, Study Three) this may be apparently regardless of any work done on the house.

However, not all residents felt unsafe, one felt that local council work was comprehensive enough and therefore he was happy and felt safe enough (Interview Fifteen, Study Three) and others stated that regardless of the flooding they wanted to remain in their property. 'Well I've lived in that cottage since 1971 and this is the first time I've had water in the house so I feel that it must have been human error for this to have happened and the answer to that is yes. I do feel safe' (Interview Twenty-Three, pp. 5, Study Three). Although for

some this was perhaps tinged with concern about a repeat occurrence. 'Yes I'm still quite happy to be here, I wouldn't move away because of it or because of the threat of it. Ask me if I get flooded again!' (Interview Twenty, pp. 11, Study Three).

This researcher could find little evidence within transcripts of a subjective loss of personal characteristics and energy resources. For the former this is perhaps because a personal characteristic is an inherent trait and not immediately observable nor easily objectively concurred as existing and then subsequently missing. Furthermore, an inherent skill or ability is not a physical object that can be misplaced or physically damaged as a cup, car or house can be for example making it difficult to be lost both objectively and subjectively.

For the latter, energy resources, although money and time can be quantified and observed as lost or depleted in some way, the argument that money can be subjectively lost is perhaps tenuous. A person's subjective feeling about a situation or item may influence their perception of the extent of the loss but it is hard to define from information provided by affected residents just how time or money can have a duality of loss.

Social Support Resources may be both objectively and subjectively lost in so far as there may be a physical lack of support available to call upon and also a subjective loss of being abandoned or left to fend for ones self with the situation. For example, some residents interviewed felt that social support resources from official sources, in particular the council, were not perceived as practically useful or supportive. '...we saw nobody from the Parish council we saw nobody for ever didn't we? Nobody ever came down except only the vicar. That was about a week later though but we hadn't actually seen anybody to come and offer us any help or assistance or tell us where to go to or what we were entitled to and skips and stuff, nobody, nobody at all. Which was...made me quite angry' (Interview Twenty-Three, pp. 6, Study Three).

As another participant said 'Well the worst thing and annoying thing was the Parish council not one person came down to even say 'oh dear what a shame'. I think the feeling was that they might have thought ooh we want them to do something. A skip would have been nice I think we would have paid for it afterwards we wouldn't have minded but if somebody had done something.' (Interview Twenty, pp. 4, Study Three). However, residents in Northampton welcomed the provision of skips by the council (Interview Eight, pp. 3, Study Three) so this is not a general feeling across all participants interviewed.

For others loss of social support was related to family, friends or the wider community either not offering physical support or not appearing to care about affected residents. One participant when collected from his flooded home by his father said 'When my dad came to pick me up from the train station and I got into the car and he started laying into me saying you know, 'Why weren't you answering the door we had the police coming to your door and trying to see if you were there and he couldn't get any response' and he really did lay into me for not getting in touch with them in a house where you know the telephone wasn't working and etc. and I just stopped him and I said 'Hold on a minute dad I've just spent the last twelve hours caged in my house not being able to get out, flooded in and you're having a go at me.' So yeah I don't think he understood what I went through...' (Interview Fifteen, pp. 7, Study Three).

There was also a lack of support for resident's feelings and sympathy about what they were going through due to other non-affected residents telling those flooded that they were 'lucky' in some way. Some did not feel lucky '...I mean people said, 'Oh aren't you lucky, you know, you're going to have all new stuff' but you didn't feel as if you were lucky you know...' (Interview Four, pp. 9, Study Three). One participant suggested that this lack of apparent concern may be due to a lack of understanding about the situation as others who had not been affected may simply not understand what residents are going through. 'I don't think you do understand it until you've been through it.' (Interview Thirteen, pp. 2, Study Three).

6.6 Level Two Coding – Appraisal Analysis

The data was analysed using the methods previously developed for the case study interview and focus groups interviews using Lazarus and Folkman's 1984 appraisal theory. Here evidence for an indication of both primary and secondary appraisal having been undertaken was explored in order to determine whether there was support for previous findings. Both levels of appraisal were evident within transcripts of interviews but there still remained confusion regarding the use of the term 'stressful' in primary appraisal being perhaps too rigid and not encompassing enough for the experiences related. Also, within the secondary appraisal, the terms 'loss-making' and 'threat' appeared too similar to be perhaps of any real value to analysis.

6.6.1 Primary Appraisal

Within a primary appraisal the individual can assess the situation as irrelevant, thus not requiring attention or action, positive, thus beneficial and usually they will allow events to unfold on their own or stressful, requiring action (Lazarus and Folkman, 1984). However, it was apparent soon after the focus groups that this latter category did not adequately encompass the affected resident's experience. It was then decided to expand this category to be both stressful and/or negative in some way as those affected by flooding regarded the situation in their initial appraisal as negative necessitating action on their part. Sometimes this came after a warning of some kind by a neighbour or official, others when they arrived to find their ground floor engulfed in water. Some changed their initial appraisal based on new information.

The situation was not perceived initially as positive for any participants interviewed. Some at first appraised the event as irrelevant or not enough of a threat to them to require taking protective measures. One participant was concerned enough to telephone both the council and water board regarding her concern. 'I came back about four o'clock in the afternoon all of the manhole covers in the middle of the road were coming up sort of like fountains!' (Interview Four, pp. 1, Study Three). Following several telephone calls this participant was satisfied that the danger was not great and went to bed. However, due to a lack of information about the potential of the situation she decided to go to bed without taking action and she awoke some hours later to find water seeping through her front door and a potential loss-making situation occurring.

Another participant initially appraised the situation as irrelevant when she and her children went to the local brook on two separate occasions to watch the water rising and this was

generally regarded as a fun activity with little real danger (Interview Twenty-Two, Study Three). However, on the third occasion the water had risen extremely high and she began to worry and was advised by her neighbour that she had one hour to get her belongings upstairs before the flood waters went through her house 'our next door neighbour on this side wandered up, he's been here about 25 years I think and he said 'You've got about an hour before it comes in your house'. And I said 'Oh!' sort of thing, thought he was joking. And he said 'No I'm not joking I suggest you go move your things' (Interview Twenty-Two, pp. 1, Study Three). This shows a process of appraisal and reappraisal based on information received, observation and perceived level of directly relevant threat.

Most residents either arrived home following a telephone call about the situation or woke up in the early hours of the morning to find their house flooded having had no prior warning or opportunity to take protective action. A participant in Interview Five was awakened by his neighbour '...it was about 4am in the morning and we got a phone call from our neighbour next door who was 90 years of age and her husband they were asking us to look out the window as there was a river outside' (Interview Five, pp. 1, Study Three). A second stated '...we were in bed, at five o'clock in the morning. We had a very panicky phone call from a neighbour, 'Hey we're being flooded!' so I left out of bed, pulled on a pair of shorts, came out of the bedroom and the water met me on the sixth stair you know coming down' (Interview Six, pp. 1, Study Three). Another participant recalled '...basically I was at work and a neighbour phoned me up at work and said 'I think you better come home because your house is flooded'' (Interview Twenty-One, pp. 1, Study Three).

6.6.2 Secondary Appraisal

Following appraisal that the situation was serious and required attention, many regarded it as either a loss-making and/or threatening event. These categories tended to overlap somewhat as many saw it as a threat, which would cause loss and thus took action to prevent this loss or limit what had already occurred. This was perhaps because the act of seeing the water or knowing that flooding was imminent was itself a threat, which may then have loss-making consequences if not properly addressed.

An example of the process of appraisal and the difficulty in dividing threat from loss in secondary appraisal is illustrated by use of a single interview. A participant in Interview Nine discussed the process of primary appraisal, reappraisal and secondary appraisal through telling his story of his experience. He first became aware of the floods via a telephone call at eleven o'clock in the evening from a neighbour who was concerned that her husband would not be able to make it home. The participant replied 'Oh this is going to be alright we shall, we've had problems before we shall get by, we shall be ok.' (Interview Nine, pp. 1, Study Three), although the neighbour had raised concern about the extent of the floods thus far.

A reappraisal occurred following a second telephone call from the neighbour 'Lo and behold in the early hours of the next morning (laughs) it was her who rang me to say there was water coming down the street! This was one o'clock in the morning and she said it's beginning to come under the doors' (Interview Nine, pp. 1, Study Three). At this stage the water was visible in his street and the situation was regarded more serious than before

especially as the neighbour enquired about the participant's small dog and whether it was ok. The neighbour also suggested that she come round to the participants house and help move items out of the path of the water indicating that the flood was regarded as a potentially loss-making situation.

On the way downstairs the participant looked out of the window and said to the neighbour 'it will soon be coming in through the door' (Interview Nine, pp. 1, Study Three) and it is at this stage that a secondary appraisal has taken place. There is a real threat, which is observable to the participant combined with the need to move items upstairs as it could be a loss-making situation as highlighted by the neighbour. The participant immediately places his dog upstairs out of harms way and '...I donned a pair of gumboots and I quickly started looking into all my rooms and moving what I thought was necessary upstairs' (Interview Nine, pp. 1, Study Three). In this example the appraisal that the situation was both a threat and loss-making one seems to have been taken at almost the same time making it difficult to distinguish between the two.

Very few actually stated that the flood was in some way a challenge to them although one participant did see the act of coping with the floods as a personal challenge as she had recently been divorced from her partner. '...in some ways it strengthened my resolve to get things sorted out because I had to sort of take the attitude of 'Yeah it's my problem, it's my house, it's my things, I need to sort this out'' (Interview Eight, Study Three). This low rate of appraisal of the event as a challenge may in part be due to the damage sustained by residents overshadowing the situation and thus placing it in a mostly negative light.

The only participants to regard the situation as not stressful or negative in some way were those who were not directly affected lending weight to Hobfoll's (1989) argument that loss is directly related to saliency. Interview Ten was advised by a co-worker that the village he lived in had been flooded but he did not report that he was greatly concerned about this which may in part be due to the fact that he did not live in the affected area (Interview Ten, Study Three).

Interview Twenty-Four also became aware of the flooding and went down the road to check on what was happening, to assess perhaps if it directly affected him in some way. But it seemed from his interview that he was not directly affected as he spent most of his time walking around looking at the water (Interview Twenty-Four, Study Three). He did not regard the situation as negative to him personally as he did not believe in he was in any danger. However, a neighbour approached him and advised him about manholes under the water level and to be careful, thus the floods then had to a lesser extent, a level of personal threat for him (Interview Twenty-Four, pp. 1, Study Three). As he commented '...I walking around in the road there by the telephone box and a man who has more sense that I have said 'You want to be careful.....manhole covers he said 'I cant tell you where they are I've forgotten but if they happen to be forced up you might disappear down it!'' (Interview Twenty-Four, pp. 1, Study Three).

Perhaps the confusion regarding identification of secondary appraisal may be linked in some way to timings of events. If the participant had prior warning, which was heeded, they tended to view the situation as a threat with loss-making potential, for example like

participants in Interview Twenty-Two. If they awoke to find their property full of water they quickly realise that they had sustained damage to their belongings (a loss) and they find this threatening such as participants in Interview Sixteen. Both loss making and threat categories appear to be involved but the actual secondary appraisal itself may be dependent on other factors not covered in greater depth within this project.

Also the floods seemed to be regarded as a threat, if danger to life was involved. In Interview Thirteen the participant was concerned about her parents who were in the house at the time (Interview Thirteen, pp. 1, Study Three). In Interview Twenty the participant was concerned about her father who was elderly and in the house on his own (Interview Twenty, pp. 1, Study Three). In Interview Fourteen the participant had experienced a flood some years previously which had caused the collapse of a wall and the flood in 1998 began to get to level that concerned her enough to consider that it may happen again (Interview Fourteen, pp. 1, Study Three).

6.7 Level Three Coding – Coping Analysis

In this section the three main categories of problem, emotion and disengagement-focused coping are considered. Overall, there was strong evidence to support the use of the coping categories previously defined within the flood situation. Findings from interviews with Northamptonshire participants also concurred with those from Yorkshire indicating that these three strategies may be commonly used in similar disaster events. Within this series of interviews it became more obvious there were certain barriers to participant's choices of coping adopted, which may impact upon any pattern of resource loss to coping used. This is because there may be limited coping options available at any given time, due to a variety of factors discussed in Chapter Seven, to deal with a resource loss. Additionally, following analysis of the data other items and sub-categories in these three groups were added based upon previous findings from this research project.

It was decided that an attempt to define the types of activities undertaken within each broad coping group would be useful to assist answering the research questions. Therefore, the COPE inventory (Carver, Scheier and Weintraub, 1989) was used to sub-divide problem, emotion and disengagement coping defining exactly what type of activity might be typically seen in each category (see Appendix E). This facilitated more thorough analysis and allowed any patterns between resource loss, be it objective or subjective, to be observed. Discussion regarding the actual patterns of loss to coping is contained in Chapter Seven. To ensure these new codes were relevant, data from the previous study was also retrospectively re-analysed to ascertain if the new codes were appropriate. This was found to be the case.

6.7.1 Problem Focused Coping

This type of coping is undertaken when the individual feels the situation can be solved or changed. Typically includes objective and analytical activities directed at defining the situation, examining the options and taking action. This approach may or may not be successful at resolving the situation. (This definition was developed with attention to previous definitions of problem focused coping by Lazarus and Folkman, 1984, Freedy, Shaw, Jarrell and Masters, 1992 and Carver, Scheier and Weintraub, 1989). In this category

evidence was sought indicating that participants attempted to cope with the floods using any approach specified within the problem-focused coping list (Appendix E).

In addition other items were added to those already listed based on previous findings as it was felt they allowed for fuller analysis of the data. These were within the Seeking Social Support for Instrumental Reasons category – 'Getting help from others to solve a problem' as it was felt that the categories as they stood did not actually distinguish the act of receiving tangible help from others from other types of social support. Within the category of Suppression of Competing Activities the item 'Suppression of competing with others' was added as a separate item. This was to distinguish the behaviour of residents with each other as opposed to just general suppression of competing activities.

Active coping activities were discussed frequently as many, once faced with the floodwater, felt they had to do something to solve the problem. Some tried to remove the water by placing towels (as previously discussed) or attempting to brush the water away (Interview Seventeen and Eighteen, Study Three). However, when residents arrived to find water on the ground floor many began concentrating their efforts on dealing with the situation as it was without trying to get rid of the problem. Here activities such as moving items upstairs out of the way of the water (Interview Two, Study Three) were described. Afterwards, some joined action groups or local committees to build up pressure to officials regarding residents concerns in the area in an attempt to get something done about the problem (Interview Thirteen and Sixteen, Study Three).

Planning activities were largely reactive during the first hours of dealing with the flood and then pro-active later on when the immediate urgency had passed and residents had time to consider their options. Here residents planned what they had to do to reduce the potential loss to the best of their ability, such as keeping themselves safe by avoiding the water for fear of electrocution (Interview Twenty-Three, Study Three) or moving children to another house out of the way of the water (Interview Twenty-Two, Study Three). Then once the water had gone down or immediate danger to life was over participants assessed the situation and decided on how best to approach it (Interview Seven, Study Three). Many had to consider what action they needed to take to facilitate getting their house back to relative normality and although no participants discussed the word 'strategy' in their interview to describe what they did, many appeared to have some sort of plan as to what they needed to get done and why.

Suppression of Competing Activities were not directly discussed but rather were implied by inference. Some took time off work in order to concentrate on dealing with the flood aftermath 'Work was quite good, they gave me a week off unpaid' (Interview Twelve, pp. 5, Study Three) others asked their employer for flexibility in their job for be able to go home when they needed to meet builders or empty their dehumidifier (Interview Eight, Study Three) perhaps realising that they would not be able to do both activities at once.

Some participants tried to avoid being concerned with other problems or issues that were occurring at the same time. 'It was a very, very bad time for us within that couple of weeks my dad had just been diagnosed with terminal illness my husband had been made redundant and then we had flooded and those three events happened within a fortnight of each other.

So it wasn't just the flood I was dealing with, all my attention went onto the flood' (Interview Twenty-Two, pp. 5, Study Three).

Some participants had other health related concerns at the time but tended to discuss these in terms of what they were doing to resolve that medial issue at the same time as dealing with the floods. The implication here was that the medical complaint was not being allowed to interfere with the participant's ability to cope with the flood situation although how successful this was is questionable. 'I was also having to go to hospital...I've got a heart condition and I was still under hospital doctors regarding the heart condition which was causing problems by then. And...you don't realise when the adrenaline's pumping the stress and the strain that you're under you tend to pass things off 'Well everything's ok'' (Interview Five, pp. 5, Study Three). Another put up with pains in her chest for several days until she went to a doctor to have it examined (Interview Four, Study Three).

Some discussed their coping in terms of just 'getting on' and dealing with situation without allowing themselves to become upset about what had happened as they felt this was counter productive. 'I find just getting down to the business really and getting things cleaned up that what helped...and makes you want to just get on and get it done. It's no good sitting down and crying...' (Interview Twenty-Three, pp. 11, Study Three). And several discussed how other affected residents talked amongst themselves and tried to help each other as best they could (Interview Eight and Twenty-Three, Study Three).

However, it must be noted that one couple did indicate that some residents were perceived as trying to compete with each other in terms of how affected they were compared to others. 'And then you got people who lived here what ten, twelve doors along and as you know this is a flat road, saying, 'Oh of course our floods were worse than yours!' And you've got to believe it, you've got to believe it, incredible!' (Interview Six, pp. 6, Study Three).

Restraint Coping was indicated as having occurred in terms of how long people waited for plaster to dry and also the amount of time people waited for builders who were working many houses at once. '...these builders they'd got other houses that they were doing and the amount of time it took them to get everything done as well surprised me as well I thought that would probably only take them a few weeks or a month at most probably to get everything straight again. But that took you know another three months' (Interview Fifteen, pp. 8, Study Three). In this case the participant even went back to sleep because he felt he could not do anything useful upon finding water in his house at that time! 'But you know there was absolutely nothing you could do really, no way I was going in the water so I went back to bed to get warm because it was really, it was really cold. And because I was so shattered I fell asleep even! Bet not many people did that!' (Interview Fifteen, pp. 1, Study Three).

The vast majority of participants used seeking Social Support for Instrumental Reasons. Either through discussion with neighbours about what they were doing to deal with the flood (Interview Eight, Study Three), taking advice from insurance companies about the next step (Interview Thirteen, Study Three), telephoning the council to find out more

(Interview four, Study Three) or enlisting friends and family's help in provision of somewhere to have a meal and stay (Interview Nine, Study Three).

A general sequence of actions (not applicable to all participants but which gives an indication of the variety of problem focused coping undertaken with reference to a participant who discussed this activity) illustrates the scope, variety and problem focused nature of the coping undertaken is as follows. It seemed to be upon recognising that there was floodwater on their premises, initial action involved removing items of value or personal belongings out of the water or the path of the water (Interview Two, Study Three). This was either done alone or with support of friend, neighbours or as in the case of one participant, a passing stranger on the street (Interview Five, Study Three). This activity may have continued for some time until either cold halted their actions (Interview Fifteen, Study Three) or they left the property for warmer and safer accommodation (Interview Seven, Study Three).

A period of time passed in which they perhaps chose to stay with friends or relatives (Interview Six, Study Three), or sought temporary paid accommodation in a hotel (Interview Thirteen, Study Three) until the water level had dropped and they could re-enter their house. During this time some participants chose to contact insurance companies to find out what to do next and what they were covered for (Interview Twenty-One, Study Three). Upon re-entering the affected property and perhaps on conjunction with advice they had received from insurance assessors, previous knowledge or just following activities of others in their area, many began stripping the ground floor of the house of water damaged goods (Interview Four, Study Three). Several participants at this stage enlisted help from others with the physical labour of moving heavy, wet and contaminated items out of the house (Interview Twenty-One, Study Three).

Contractors such as builders and assessors were then brought in to provide expertise regarding the next steps to take (Interview Eight, Study Three). Participants realised that the timeframe of flood to complete renovation of the affected parts of the property would be very time consuming and would involve waiting patiently until the house dried out (Interview Five, Study Three) before other work could begin. Residents also made alternative longer-term plans regarding their housing requirements to deal with the now secondary issue of accommodation for an extended period of time.

6.7.2 Emotion Focused Coping

This type of coping is undertaken when the individual feels the situation must be endured and actions should be taken to reduce or manage the emotional distress of the situation. Typically includes activities aimed at assigning new meaning to the situation or regulating the emotions regarding the situation without trying to change it. (This definition was developed with attention to previous definitions of problem focused coping by Lazarus and Folkman, 1984, Freedy, Shaw, Jarrell and Masters, 1992 and Carver, Scheier and Weintraub, 1989). In this category evidence was sought indicating that participants attempted to cope with the floods using an emotional approach (see Appendix E).

In addition other items were added to those already listed as it was felt they allowed for fuller analysis of the data. These were within the Focus on and Venting of Emotions

category – 'Was worried about the situation reoccurring/continual checking' and 'Felt someone was to blame for the situation'. Both were added following initial analysis of the data because these appeared to be activities that were undertaken by several residents and were not adequately covered by the existing items.

A new category within Emotion Focused Coping was also added, that of Positive Comparisons. It was felt that many residents appeared to exhibit coping that in some way allowed them to make positive comparison to others to re-establish meaning and understanding of their own experience. This seemed different to the category of Positive Reinterpretation and Growth because residents made direct comparison with others. However it could be suggested that these following items may easily be incorporated into the existing category under the heading of 'Looked for something good in what happened'. The new items developed were; 'Felt it 'could have been worse' in some way', 'Felt others fared worse than they did in some way' and 'Felt 'lucky' in some way compared to others'.

Many participants tried to talk to friends and relatives about what was going on and how they felt and there was a level of understanding implicit between those affected. This was typically stated in the form that '...everybody was in the same boat...' (Interview Two, pp. 3, also Interview Twelve, Sixteen, Four, Study Three). However, social support from marital sources was at times strained and some found it hard to discuss how they felt (Interview Two and Five, Study Three).

Some did state that obtaining sympathy or understanding about their situation from friends and relatives was at times difficult. This may have been due to others not affected simply not understanding the impact such an event can have (Interview Fifteen, Study Three) or because others mistakenly believe the outcome (such as a new kitchen paid for my the insurance company) outweighs the bad and that the participants were in some way 'lucky' (Interview Four, Study Three).

One participant relates how her friend came to visit and the conversation that took place. 'The friend that came up from York must have been three or four months after we just had the house re-carpeted and it was all looking very nice, very fresh, smelled nice and back to normal and she said, 'My goodness you've done well out of this flood haven't you?' and I said 'Sorry?' She said 'You've done well out of this flood' and I said 'Are you serious?' She said look you've got new carpets and I was so angry, I thought how dare you turn round to me and say we've done well out of this flood. I said 'If you had any idea what it's been like living in this for the last three months' I said 'It's been cold, it's been wet, it's been smelly, we've had sewage in the house, the kitchen has been upside down, we haven't had a kitchen floor and you think we've done well out of it?' (Laughs). But I think that was probably something worth mentioning because it does appear false perception of how well you've done out of it doesn't it?' (Interview Twenty-Two, pp. 8, Study Three).

Perhaps surprisingly, many participants interviewed spoke about the positive aspects of their experience and tried to see some good in what happened. '...a lot of things were replaced that I could have done with replacing before, so in some ways it was very nice that someone else paid and umm...for the work to be done for me. And...but I wouldn't want it to happen again. Once was quite enough' (Interview Thirteen, pp. 3-4, Study Three).

Several used the words 'fortunate' and 'lucky' to describe their experiences. Some in respect to the limited damage the flood had caused (Interview Ten, Eighteen and Nineteen, Study Three). Others in terms of how quickly they had been able to get resources together to deal with the floods (Interview Six, Study Three) or that they still had access to other resources like electricity as opposed to other affected residents (Interview Twenty, Study Three).

Some compared themselves to others also affected indicating that 'it could have been worse' in some way, regarding others as having less resources than they had to cope (Interview Fifteen, Study Three). This suggests that participants may try to re-evaluate their experience in light of others and in some way this helps them to decide that the situation, although overall perceived as negative, did have some aspects, which were more positive than others.

That there may be a hierarchy of affectedness, which may also have subjectively held criteria associated with it. Indeed, the participant in Interview Twenty-Two actually compared her experience to others in central Northampton whom she felt were worse off than she was. 'I think we came off quite lightly I felt I was lucky in comparison to other people. I kept thinking how much worse it could have been I was aware that people in **** (area) had flooded right up upstairs level. And I think you try to think positive and you think well it could have been a lot worse. We got out of this quite lightly' (Interview Twenty-Two, pp. 5, Study Three).

Many in retrospective telling of their story seemed to have learned something from the experience, whether it was practical information about what to do and how best to approach the situation or what to expect within a flood situation. There seemed to have been a level of awareness raising and knowledge building based on direct experience. When asked how they would cope with another flood answers varied;
'I think I've got more of an idea of what to do. I don't think I would...immediately deal with it any different apart from shifting stuff but certainly from the point of view of dealing with various bodies, yes, because you've got a better idea of who to talk to and how to get things done' (Interview Eight, pp. 10, Study Three).

'And I really now I'm of the mind that if it floods I don't particularly care because I actually sit down and think 'Well I'll change the décor in this room and next time it floods I'll do this' and really I'm past caring now' (Interview Twenty-Three, pp. 8, Study Three).

'I suppose we'd know what we were doing rather than sort of panicking is suppose last time and I suppose you'd try and save a bit more in the way of furniture and that' (Interview Seven, pp. 9, Study Three).

There appears to be limited evidence within the transcripts of participants trying to grow as a person, except Interview Eight in which the interviewee regarded the situation as a challenge to her personal ability to cope as a single woman (Interview Eight, pp. 11, Study Three). However, this is only the personal opinion of the researcher and this was not explored in greater depth with the participant.

There was some level of acceptance about the event or situations within it. Regarding having to wait for builders to complete work one participant said 'You feel like jumping up and down and screaming...umm...but there's nothing you can do cause until they've finished work you cant do anything about it you just get on with it. Its British isn't it? But you do! There isn't any choice, there isn't any choice. It has to be done so you have to just sit back and wait for it to be finished!' (Interview Twenty, pp. 10, Study Three).

Others accepted the reality that it had happened once the initial shock wore off indicated by undertaking problem focused coping activities soon after (Interview Five, Study Three). But in interview discussion several suggested their acceptance about the event and any possible future reoccurrence was due to the belief that it was a 'once off' or extraordinary event that could not really happen again. 'Whether it would ever happen again I don't know but it just, it was just an unusual thing' (Interview Nineteen, pp. 3, Study Three). This perhaps shows a level of denial regarding future occurrences or an avoidance at wishing to either entertain the notion of a repeat event or having to deal with it once again if it does happen.

Turning to religion was not evident as a coping mechanism for participants interviewed except for one lady in particular who was a member of a local church and found the practical support offered by her minister most useful (Interview Eight, Study Three). There was also implication that the church community offered her emotional support as well when she stated '...I was getting panicky about it and thinking how am I going to cope but to be honest because it's so huge nobody ever expects you just to deal with it...' (Interview Eight, pp. 4, Study Three).

Some participants became upset upon witnessing the flood or during the course of cleaning up after it and described being stressed '...it put me under more stress I would say than you know I'd been under previously' (Interview Twelve, pp. 4, Study Three). Some described being 'shocked' (Interview Five, pp. 1, Study Three) and others, how they became upset '...the only time I cried when I came back on the Saturday when it suddenly hit me you know that I'd lost my husband, I'd lost most of me home you know...' (Interview Four, pp. 7, Study Three).

Many used humour to cope with the situation either at the time or during the interview itself. 'Oh yes definitely you've got to have a sense of humour there's no good sitting down and taking it all in. Well you can laugh about it afterwards although it wasn't funny you know but if you didn't laugh you sat down and cried...' (Interview Four, pp. 7, Study Three).

One participant, reading from his diary kept at the time of the flood in 1998, recalled a story about his false teeth during which both the researcher and the participant were laughing at the situation. Whilst the participant found the situation funny, he did temper the humour by restating the events which were also causing him concern at the time such as marital strain, medical ailments and so on.

'During the flood we had this we all seemed to be getting sort of whatever, colds and silly little things. I got a dreadful gum disease I couldn't wear me bottom false teeth they were

hurting me so much. And while we were living at my son's house, I never take them out normally, but I couldn't sleep with them so I took them out. He's got a...dog that opens doors with his paw and came and pinched me teeth and ate them!...But he ate me false teeth, the bottom set of me false teeth!...I couldn't find them, I looked everywhere...well me daughter in law found them in the dogs basket all crumbled up and this was on Saturday morning and on the Tuesday morning we were going to Spain. And I thought 'I'm not going to Spain without me teeth!'' (Interview Five, pp. 4, Study Three).

6.7.3 Disengagement Focused Coping

This type of coping is undertaken when the individual believes the situation is unchangeable or a poor outcome is expected. Typically includes self-limiting activities which are cognitive or behavioural and aim to avoid thinking about the situation, its implications or that avoid any effort to manage the affect associated with it. (This definition was developed with attention to previous definitions of problem focused coping by Lazarus and Folkman, 1984, Freedy, Shaw, Jarrell and Masters, 1992 and Carver, Scheier and Weintraub, 1989). In this category evidence was sought indicating that participants attempted to cope with the floods using a disengagement approach (see Appendix E). In addition another item was added to those already listed as it was felt they allowed for fuller analysis of the data. This was within the Mental Disengagement category 'Lack of interest in activities going on around them or the situation'.

Participants discussed a level of disbelief at what they were witnessing or being told had occurred, as in the case of Interview Five who was telephoned by his neighbour about the situation. Because the neighbour was elderly and the participant had never experienced a flood before, he immediately thought 'She's flipped!' (Interview Five, pp. 1, Study Three). As another participant said 'I suppose the other feeling about it we just, well didn't believe it and you were trying to...its just not real, it didn't seem real did it?' (Interview Twenty-Three, pp. 8, Study Three).

There was denial regarding the possibility of another occurrence for one participant after she had been flooded in 1992 '...you know you think, 'Oh you know its not going to happen again, It's a one off, it was heavy rain, it's not going to be so bad you know?' (Interview Two, pp. 4, Study Three). No participants interviewed actually stated that they refused to believe it had happened which is perhaps unsurprising as they were physically confronted by a volume of water, which may have quickly made the situation very real. For possibly similar reasons neither did any participant state that they acted as if the flood had not happened.

Some participants gave up trying to get problems sorted out in the aftermath of the flood and went on holiday to get away from the situation (Interview Five, Seven and Twenty-Two, Study Three). But there seemed to be little discussion relating to how participants gave up trying to sort out the problem or reduced the amount of effort they put into solving the problem. This is perhaps due to the fact that stopping effort towards returning the house to normal would mean that they had to continue living in temporary accommodation or would have to live in a partially completed house which was cold, damp and smelled.

Some participants seemed to have mentally disengaged from the situation by showing a distinct lack of interest in the activities going on around them, such as shopping for replacement items (Interview Four, pp. 9, Study Three). Others tried to take their minds off smaller aspects of the flood, such as having to eat their meal in one room of their temporary accommodation, by choosing to eat in different locations (Interview Five, pp. 6, Study Three). Another participant discussed how he had 'schooled himself' to deal with correspondence and telephone calls to keep on top of things (Interview Nine, pp. 3, Study Three).

He also stated how he had kept himself busy by choosing curtains and other items which may either be viewed as pro-active and problem focused coping or as disengagement coping by trying to concentrate on smaller activities to avoid thinking about the larger one – the flood. One participant, discussing the interview off tape, apologised for his lack of clarity or recall of events which he ascribed to not wanting to think about the event for so long and wanting to try and move on from it (Interview Twelve, pp. 7, Study Three).

Another participant explained how she opened a bottle of whiskey and poured herself a drink, which she sipped every time she went upstairs with items she was trying to save from the flood. She explained that this, according to her doctor, probably helped her cope with potential hypothermia (Interview Four, pp. 1 and 6, Study Three) although she acknowledges '...and it kept me sort of going you know.' (Interview Four, pp. 6, Study Three). A participant in Interview Two was prescribed tranquillisers for the period after the floods to help her cope, as she believes she was '...close to a nervous breakdown at one point' (Interview Two, pp. 4, Study Three). However, the use of alcohol and drugs to cope with the floods was not evident throughout the majority of interviews.

6.8 Conclusions from Study Three

It must be noted that these findings are based upon a relatively small number of interviews and it is possible that if everyone who had been contacted had participated, the results may have been somewhat different. This could have been because there was a special aspect in the group that did respond and agreed to further discussion, which made them in some way different to others who may have fitted the criteria but chose not to participate. An example of this might be the fact that several interviewees became visibly upset during the course of the discussion and they may be representative of a sub-group, who coped differently in the larger 'flood-affected' population as a whole.

However, the overall aim of this study was to determine whether previous findings relating to applicability of the models chosen could be confirmed. This proved to be the case with strong evidence indicating that the five categories of resources were both used and lost within the flood event and that appraisal and reappraisal occurred on both a primary and secondary level. Previous concerns regarding the use of Lazarus and Folkman's 1984 model also were substantiated with data suggesting that the codes of 'stressful' within primary appraisal and 'loss-making' and 'threat' within secondary appraisal may require further definition.

Appraisal was used extensively by participants in assessing and reappraisal of the situation at many stages throughout the impact and longer-term recovery phases. Data suggests that personal opinion and individual perspective played a large role in determining the participant's action and reaction to the flood.

Lazarus and Folkman suggest that stress occurs when there is an imbalance between the person and their environment. In this case, the floodwater entered the homes of residents uninvited and intrusively, forcing an imbalance in normal living conditions. The invading water provoked a need to respond by residents to protect and retain their home, personal items and in some cases the self, from possible harm. Resources were utilised in reaction to the imposed situation and in some cases coping employed was not adequate. Water still entered, losses were still incurred. Resources were taxed and/or exceeded as residents struggled to cope using prior knowledge that was inadequate, social support resources that did not deliver what residents needed and a lack of physical items required to clean up afterwards.

Lazarus and Folkman (1984) suggest that environmental demands can produce individual and group differences in terms of the degree and type of reaction. That although pressures can produce stress in many people, the reaction can vary enormously. This was evident within this research as many (from an observers perspective) appeared to have been flooded with equal intensity, however whilst some chose to remain pragmatic and accepting of the situation showing little emotional strain, others were still visibly upset some four years later.

Lazarus (1993) states that 'Changing the relational meaning of what is happening is a very powerful – and widely employed – device for regulating stress and emotion' (Lazarus, 1993, pp. 238). It may be suggested that those who appeared distressed by the floods may not have employed this strategy and as such did not, or could not, regulate heir emotional reaction to the event and it's impact. Conversely, those who appeared to accept the event and the losses incurred, seemed to 'get on' with the business of actively coping and managing the aftermath of the flood. This supports the view reappraisals are undertaken by individuals by means of employing functions of coping, such as problem-focused and emotion-focused perspectives in order to adapt to the situation (Lazarus, 1993). It is this adaptation that assists the individual in management, and ultimately coming to terms with the emotional impact and practical implications, of the event.

There is also support for the concept that reappraisals may occur several times in the course of one event. Participants spoke about changes that occurred throughout, additional problems that presented and reasons for decisions made at various stages. Coping employed was not merely reactionary though as Lazarus and Folkman (1984) suggest. 'The meaning of coping as a process can be seen in the long duration of grief work and the changes that take place over time, beginning with the moment of loss' (Lazarus and Folkman, 1984, pp. 143).

There is evidence to suggest that coping can begin even before the event or moment of loss occurs, in that several participants discussed acquisition of resources to protect themselves in case of flood, or in practical preparation for another event. Many spoke of moving papers

and personal items upstairs to ensure they would be easy to find and not damaged. Others of acquiring sandbags and sand stores for their property, improving drainage on their land or setting up social networks to ensure that all residents could be warned on impending flood.

The situation was viewed as stressful for participants upon realisation that loss, or the potential for loss, had occurred. It was not only the loss of the physical aspect of the item that was troubling, but also the loss of meaning, memory or attachment the item may have represented. Thus supporting the notion of one item producing dual loss.

Hobfoll's Conservation of Resources model appeared to be highly relevant to use for understanding the experience of flood affected residents. Additionally, interviews supported the concept that the model could be expanded to examine both objective and subjective resource loss although there may be some limitations. Object, Condition and Social Support resources appeared to have both objective and subjective elements within a single resource that could be lost in a flood situation. However, Energy and Personal Characteristics, perhaps because of the subjective nature of the existence of some of the items (such as awareness or optimism) in the first place, may not.

All three broad coping categories were undertaken by participants to deal with the flood and its aftermath although some appeared to be more relevant or used than others. Problem focused coping was particularly useful and utilised as was emotion focused coping but disengagement was not used as much. This is perhaps because the nature of the flood event is that it is a physical situation which would require immediate attention because to avoid taking action may mean a situation that is even less desirable – i.e. not being able to return to their homes.

Some items within all three coping categories were not used by any of the participants interviewed which may not necessarily mean they are inappropriate, perhaps because they were not perceived as the best way to deal with the situation or that they were unavailable to the resident. The need to expand the previous coping codes to detail exact coping strategies used was also supported.

7.0 Discussion

7.1 Introduction

This chapter draws together findings and discussion from previous chapters in order to understand from participants interviewed what role resources and appraisal had in their experience of loss and coping due to being flood affected. This section will examine the research in respect to literature cited in Chapter One before proceeding to examine each research objective. Theoretical and practical implications of these findings will be discussed. Each research objective will then be examined individually and evidence supporting or refuting the hypotheses will be presented.

To clarify therefore, the overall aim of the research was:
To understand from participants interviewed what role resources and appraisal had in their experience of loss and coping due to being flood affected.

The research objectives were:

1. To establish which author's work was more appropriate towards understanding an individual's experience of flooding and any subsequent loss, Hobfoll's COR Model (1989, 1998) or Lazarus and Folkman's Cognitive-Appraisal Theory (1984).
2. To identify whether it was more useful to combine both Hobfoll's COR Model (1989, 1998) and Lazarus and Folkman's Cognitive-Appraisal Theory (1984) to gain a greater understanding of an individual's experience of flooding and any subsequent loss.
3. To understand if a single resource can contain both an objective and a subjective component, which can be lost as a result of a stressful experience, in this case following a flood disaster?
4. If this last aim was supported, then two further objectives were to be investigated;

4.1 If a single resource contains dual components, which element of the loss (the objective or the subjective one) has the greater impact upon the individual?

4.2 If a single resource contains dual components, how does the individual cope with loss of the objective element compared to loss of the subjective element?

7.2 Literature Review

Previous literature suggested that there does not appear to be any single definition of what a 'disaster' is, but that it seems to be comprised of several interlinked factors. There is a transaction or interaction between humans and their environment in which individuals or communities may be exposed to risk. This interaction can result in a situation, which is perceived as stressful and highly disruptive to those involved, one that requires coping actions in order to manage the event and its effects as they unfold. However the actual impact upon any single person can vary enormously in response to internal and/or external factors present at the time ranging from magnitude, duration or impact of event to secondary effects, resources available or perception. In this way, disasters are 'what its victims and participants perceive it to be' (Alexander, 2000, pp. 22) suggesting that internal

appraisal processes of the event and subsequent effects play an important part in the level of impact a disaster may have on an individual.

This was supported, as both external and internal factors appeared to have weight for participants affected by flooding. The transaction occurred when floodwaters entered their property and disrupted their normal living and working patterns. However, the level of perceived risk, stress or impact varied depending upon several factors. For some participants the water did not enter their home and as a result they did not report high levels of agitation or stress, rather mild inconvenience or even excitement at the new situation. Conversely, those with extensive water damage to property, some with long recovery periods, discussed situations of emotional, mental and physical stress on a greater level than others in relation to events and factors at that time. This suggests that the quantitative properties of any event may have bearing on an individual's perception of the disaster and its impact such as volume of water, duration of event, secondary events or practical resources available.

It seemed that the less water on the property, the fewer items lost, the shorter it took to clean up and return to a pre-flood normality using usual coping methods, then the less stressful the situation was perceived to be. Conversely, those with vast volumes of water on their property who may have lost many items, some of which were sentimental or precious in some way and had multiple secondary events occurring who took a long time to return to normality, faced a more stressful situation.

This usually involved using multiple coping techniques, some new or unfamiliar, resulting in participants viewing the situation as highly negative in some way. Additionally, although those with multiple exposures to flooding over a period of time may have had increased awareness of the event and its likely impact, the compound nature of continued flooding had an adverse affect upon individuals. Although participants knew what to expect and how to cope, many were upset, anxious or distressed by frequency of flooding and the repeated damage to their personal effects or lives.

However, in many cases those with what could objectively be assessed as severe damage and loss to their property reported that their own situation was in some way better than others in their area or elsewhere in the country. This was based upon personal contact with others or media reports from other locations. Here personal perception of impact may be a factor in that individuals use some form of reappraisal or reassessment of their own situation in relation to others.

Both Hobfoll (1989) and Lazarus and Folkman (1984) examine the role of reappraisal of stressful situations as a method to come to terms with what has occurred. Hobfoll (1989) states people may combat their sense of loss by re-evaluating the resources and their value, which can be the simplest course for most people, because rather than combating or enduring the stressor and its subsequent aftermath, people merely alter their interpretation of the event and its consequences (Hobfoll, 1989, pp 519). Here the individual may simply revaluate what they lost in comparison to their neighbour and ultimately decide that the situation was not as bad as it could have been allowing them to tackle the situation presumably under less stress.

Lazarus, 1993 states that reappraisal is a widely employed method to regulate stress and emotion. Perhaps the individual wishes to downplay the impact of an event by reappraising their own experiences in light of others in a similar situation so that they may regard their own circumstances as 'not so bad after all'. This may in some way, help them cope with the enormity or magnitude of the situation and its effects by holding onto the notion that it could have been worse.

Although participants state that their own experiences were stressful or negative in some way, they do down play them suggesting that 'it could have been worse' or that they were 'luckier' than others. Thompson and Jannigan, 1988, suggest that a strategy for finding meaning following loss is by reordering priorities, changing ones goals so that they are achievable, reinterpreting the event or comparing oneself to others who are perceived as worse off (Thompson and Jannigan, 1988 pp. 23).

This suggests that there is an informal 'Hierarchy of Affectedness' at work, which may have its own criteria. Each factor may affect the perceived outcome to a greater or lesser extent as the individual compares themselves to others in a similar situation. Factors possibly influencing the individuals perception of their experience in relation to others may include; volume of water, extent of damage to property, nature and type of items lost (including sentimental items lost), prior experience, social support or official help, methods of coping chosen or available, duration of event, time taken to recover from event, resources such as financial, technical or knowledge and prior warning.

This research confirms previous suggestions that psychological research of disasters can be complicated and problematic. Experimental controls and conditions may not be achievable, a representative sample may not be available and there may be significant practical constraints such as access, to overcome (Gibbs, 1989). This was experienced during the course of the research whereby pre-test measures were unavailable for the locations chosen by the researcher, a dispersed population made data collection difficult and there was a reticence towards participation by individuals. There was a lack of a representative sample because of practical constraints such as access, time lapsed since the floods and withdrawal by some confirmed interviewees.

Previous research suggests that many factors may influence the impact of disasters upon the individual, including social support (Norris and Kaniasty, 1996), resource loss or gain (Freedy, Shaw, Jarrell and Masters, 1992) or prior experience (Norris and Murrell, 1988). This thesis supports these findings in that many interviewed felt that when social support was lacking it was harder for them to cope with the event and its impact. Also, limited availability of resources impaired some individual's ability to cope effectively, such as a lack of transportation, money, time or dehumidifiers for example.

Prior experience was a mixed blessing but ultimately viewed as advantageous as it provided knowledge and awareness of the situation and what it might bring so that the individual could chose their method of coping to ensure a successful outcome. In this case participants who placed towels on the floor to mop up river water in their homes due to a lack of understanding about the situation and what was happening were less productive than those

who attempted to move furniture immediately out of the path of the water. Many expressed relief at having useful knowledge either through their own prior experience or from advice given to them by neighbours, that helped them chose an effective course of action.

Lifton and Olsen, 1976, suggested that victims of the Buffalo Creek disaster suffered from a 'death imprint' or 'death anxiety' (Lifton and Olsen, 1976, pp. 2) as a result of their experiences. The authors suggested in the US sample that memories and images of the disaster were extremely vivid even 30 months later, which they termed 'indelible images' (Lifton and Olsen, 1976, pp. 2). This was supported with interviews in Northamptonshire, four years after the flood event. Some contacted refused to participate due to a reluctance to dredge up old and painful memories, others began crying during the interview and were surprised at their depth of reaction and recall. Many immediately remembered the smell as being one of the worst aspects of the event, others the image of the first time they witnessed water on their property.

Anxiety and fear associated with the weather, water and flooding in general was also observed in Buffalo Creek, USA with one participants stating that they felt a strong need to check the river levels or becoming afraid when it rained (Lifton and Olsen, 1976). Similar findings were reported by Titchener and Kapp (1976) in relation to hopelessness, anxiety about the weather or emotional imbalance.

Although no participants involved in this thesis experienced a loss as great as death as a result of the Easter 1998 or Autumn 2000 floods, the concept of an imprint bears discussion. An 'imprint' was evident within the two samples, one three months after the event and one four years later with participants discussing their anxiety when the rain fell for some time afterwards. Many felt that they were numbed during and after the event, had emotional outbursts to family members and or felt pessimistic in relation when thinking about the possibly of their property flooding again. This concurs with findings by Lifton and Olsen, 1976. Furthermore, the 'disaster syndrome' (Lifton and Olsen, 1976, pp. 5) that the authors observed was also described by participants in both samples with interviewees from this research, many discussing their apathy towards activities, a desired withdrawal from daily life as it was and an overall constriction in living standards due to damage sustained, relocation or secondary issues.

The need for meaning and significance within their experience was also highly evident. Many actively sought out answers to problems or issues troubling them, attempted to find meaning to the event either by reappraisal (the concept that 'it could have been worse' or 'others fared much worse than I') or by appropriation of blame. Again this supports previous research (Lifton and Olsen, 1976) within a flood event, but here within a UK context. In this case many regarded the local authorities and environment agency as at fault and felt angry and helpless at the perceived low levels of explanation and subsequent assistance.

Even though this was an event which began and was compounded by heavy rainfall, there was a general feeling demonstrated by repeating rumours, first hand accounts or hearsay, that it was worsened by technical or human failure. Ultimately, that the event perhaps could have been lessened or even avoided if preparatory action had occurred. Suggestions were

that this could have been in the form of an early warning by the appropriate authorities, regular maintenance of floodgates and flood barriers, information on what action residents could take or less building upon flood ground.

Losses experienced ranged from total devastation to the ground floor of the property to a few plants and gravel being washed away. There were common themes (discussed later in this section) but uncommon reactions. The loss of a garden, due to water damage for example, was to one person mildly irritating but to another highly upsetting. What seemed to differentiate between the two was the level of attachment and meaning the item had for each individual. One woman found the damage to her garden highly distressing as she took pride and satisfaction in her efforts to create the garden she wanted. To see it washed away or severely damaged was too much for her emotionally.

These were regarded as losses to the individual but from an outsiders point of view (i.e. the researcher) the losses at times were hard to comprehend. This suggests that Harvey's, 2001 first exception to the common objective and subjective markers required defining loss as having occurred may hold true. He suggests that if a loss has occurred but cannot be objectively concurred, perhaps due to bias or prejudice on the part of the outsider, if the individual believes it has taken place then this inside view take priority (Harvey, 2001).

This addresses one of the fundamental problems in researching loss, how does the researcher actually know it has occurred, especially if compared to other situations or an individual, the loss does not appear to be so great? In this research is was necessary to accept that the losses described and the manner in which they were detailed were to be held as significant and true regardless of researcher bias or opinion. Ultimately for participants, as Lazarus 2001 states the nature of the individual is to place their own perspective and appraisal above that of any consensus so if they feel a loss has occurred, then for them, it has. The researcher has to have a certain amount of faith in the individual to relate what has happened and why it is a loss so that she may understand the issue better.

Harvey et al., 1995, suggest that activities of a person typically unresolved with their loss could include preserving 'parts of their homes or physical worlds' perhaps 'in part because of a sense of devotion' to the lost person and in part because of a 'bondagelike commitment to the memory of the lost other' (Harvey et al., 1995, pp. 233) and there may be a need to make sense or find meaning not only in losses relating to death (as this reference does). This was both observed and discussed with participants within the two locations.

With regards to furnishing and decorating, many people wanted their homes to resemble the pre-flood period. However, this was often difficult as insurers specified certain shops that residents could buy goods from, thus limiting their ability to return their property to a 'normal' appearance. Some in Yorkshire found it hard to come to terms with the fact that their rooms would not look like they had done before.

One woman in Northamptonshire who had lost her husband before the flood occurred had kept her house exactly as it was when her partner was alive. The flood destroyed the ground floor and the memory of her husband and their life together was damaged with floodwater ruining physical items that belonged to him. However, some used the flood event to

redecorate, redesign and purchase different items and saw it as an opportunity to improve the room's appearance. This suggests, following Harvey and colleagues (1995) findings that these individual were in some way resolved with their loss, as they did not attempt to revert back to 'how it was'.

From the researcher's perspective this sense making or searching for meaning was alluded through not only via open discussion, but also through other less obvious cues. Niemeyer, 2001, terms these non-verbal cues 'emotional modulation' (Niemeyer, 2001, pp. 265) in which the onus is upon the researcher to track both the spoken comments and the hidden meanings. This assists the researcher to understand the loss and how the participant makes sense of it. Within this research participants demonstrated anxiety by wringing their hands, frequent clearing of the throat, voice 'cracking' or unsteady in pitch, tears, looking down or avoiding eye contact with the researcher during certain moments when retelling their story or smoking continuously.

Often such activities were observed when the conversation came round to their own losses, how it felt at the time and when recalling the moment they knew they had been flooded. This suggests that these sections of the interviews were more stressful and that perhaps a certain amount of meaning to their experience was yet to be discovered or made sense of. Some however, laughed throughout their interview, shrugged off suggestions that any losses described were affecting them adversely and tried to engage the researcher into supporting their view of events. This was done via use of certain types of phrases 'you know what I mean?' or 'do you understand?' for example, within their retelling of events.

Those who had described losses that had affected them did not use these types of phrases, perhaps suggesting that they did not require nor need external validation of their story. It could be said that by agreeing to participate in the interview that they were seeking validation of sorts from the researcher as an outlet for their story, but this is merely conjecture and cannot be supported or refuted at this time.

Harvey, 1996, suggest that the act of story telling to a confidante actually assists the individual to make sense of events by providing a forum for them to organise thoughts, feelings, actions and reactions following the loss event into a more manageable package. This gives structure and a perception of control over events by separating the 'story' as it is being related, into a plot comprising of a definable sequence (Harvey, 1996). It allows the individual the option of examining the major 'stressors and losses' (Harvey et al., 2001, pp. 235), in whatever depth of detail they are comfortable with.

Indeed, in some cases questions regarding losses were asked and evasive or shortened answers were received. When prompted further by the researcher, some did not wish to discuss that aspect in any greater detail and continued the conversation into another area they were comfortable with. This was especially true of one elderly gentleman in Northamptonshire who played down his losses and only when the tape was switched off and the interview had continued did he feel ready to discuss the more personal aspects of his losses and the impact they had.

All interviewees discussed their experience within definitive phases or periods. The pre-event period before the flood hit, the flood impact, the first twenty-four hours, the first week, the longer term and the end, whereby the property had been returned to relative normality, packaging' their event into a story with defined periods. In some ways this fits the existing disaster phase models previously discussed in Chapter One, although the delineation of phases and the activities involved are not uniform across all participants and the phase's distinctions are named arbitrarily.

Indeed, for some less affected by the floodwaters the longer-term recovery stage was not applicable. These identified phases may be a symptom of the need to ensure the participant retold all aspects of their experience accurately and fully for the benefit of the researcher as several were keen to ensure they had been of help and value. Or this perhaps gives the individual a self created time frame, with clearly identifiable stages in which to mourn and indeed cope with the loss and perhaps preserve its meaning throughout this period of instability. As Ellis, 1998, states, 'An experience of loss shatters the meaningful world people have assembled for themselves. Often we have a strong desire to understand, manage, and recover by creating an account that makes sense of loss and puts the pieces back together' (Ellis, 1998, pp. 50 - 51).

Regarding the concept of control when dealing with loss, it appeared that many residents affected felt that they had little or no control over events, from the impact that was unexpected, to the need to evacuate their homes or the ability of each to cope with the damage the water brought with it. Some dealt with this new situation by tackling smaller goals such as drying out the house or choosing new furnishings, others viewed the event as something, which had benefits such as the opportunity to refurnish and others compared themselves to those perceived as less fortunate. This concurs with research by Thompson, 1998, in which the author states that making sense of loss and gaining control or mastery of a situation can be achieved via five options, '...changing to reachable goals, making positive reinterpretations, engaging in downward comparisons, accepting some outcomes, and focusing on areas of higher perceived control' (Thompson, 1998, pp. 24).

Thompson, 1998, also states that an individual's sense of control may be blocked by two key elements – situational and personal factors (Thompson, 1998, pp. 24 - 25). In this case the seriousness, extent and type of loss are all situational factors can affect sense of control but more so the subjective nature of the individuals own perception of events. This was concurred as residents who believed themselves to affected worse than others, discussed events in which they talked about having little control.

Cognitive techniques discussed by Thompson, 1998, include discussing the event and its impact, positive reinterpretation and flexibility of beliefs regarding the world (Thompson, 1998, pp. 25 – 29) as methods to regain control. Several interviewees discussed wider events such as global warming, building upon floodplains and political implications. Others stated how it could have been worse for them and compared to others they fared better.

Research presented within this thesis supports previous findings (Folkman and Tedlie Moskowitz, 2000) regarding positive aspects of disaster as several participants did discuss the event in terms of having acquired new coping skills. Such as an ability to manage vast

volumes of paperwork, handle trades persons, become forceful when required with others and becoming more confident in their own ability to deal with unusual situations. However, most issues discussed appeared to be of a negative nature and the event itself overall was not considered positive.

The notion of a post-disaster 'honeymoon' period (McLean and Johnes, 2000 and Raphael, 1986) in which communities or individuals appear euphoric and able to react positively to the event was also supported. Many interviewed reported neighbours, friends and relatives pulling together in good spirits, assisting each other and some even likened the mood to that of WWII in the Blitz whereby communities in the same situation helped each other. Indeed, a common phrase used by participants was that 'they were all in the same boat' – ironic considering the nature of the disaster! However, also supported was the concept that this honeymoon period would not last. Many interviewed stated that although others seemed initially helpful and supportive, their assistance was time limited. Eventually even those who were affected began competing amongst themselves for resources, information or help as rumours, backbiting and conflict marred the positive community spirit that had existed.

In conclusion, this research supported many previous findings. This research suggested support for the concept that disasters are what those affected perceive them to be as detailed by Alexander, 2000. Reactions within and after events vary enormously but may include a reappraisal of the situation and its effects as a method of coping. This may be to gain greater meaning or understanding of the event of to regain a sense of lost control. Within those interviewed there appeared to be a 'Hierarchy of Affectedness', which is possibly a means to reappraise and thus cope with the situation and its events. Factors contributing or influencing this hierarchy are not clear but may include many variables.

This research concurred with previous suggestions that disaster research is complex and problematic as the event, factors involved and impact vary from situation to situation. The impact of the two flood events within this project seems to have a lasting affect upon residents and the concepts of a disaster syndrome and a disaster imprint (Lifton and Olsen, 1976) are both supported here. Losses incurred can be loosely regarded as major or minor but there are no commonly regarded definitions by residents or academics as to what constitutes either. In some cases those interviewed lost similar items but reacted very differently, while some regarded the loss as highly significant others seemed nonplussed.

Discussing their losses some residents appeared unresolved with the loss and in interviews years after the event appeared upset and still affected, which concurs with previous research in which individuals try to keep homes as they were before the event as a method of coping. Non-verbal cues also alluded to the impact losses had upon interviewees and this is an important method to gain valuable supporting data as to the affect such events can have. However, data gathered in this manner was not triangulated nor recorded on film so this is merely additional information from the researchers own perspective at the time.

When discussing their experiences many broke the event down into phases or discrete sections within the flood for ease of relating the story. This in some ways concurs with

previous research suggesting there are phases within disasters, however caution should be exercised in respect to this, as these phases are arbitrary definitions by the researcher.

Finally there is support for the growing field investigating the positive impact of disasters in that several participants did discuss such matters. However, overall most found the flood to be negative and with few redeeming features. Indeed, the honeymoon period (McLean and Johnes, 2000 and Raphael, 1986) seems to have occurred and was beneficial for a period of time as previous work suggests it can be but this did not last as the negative effects wore on.

7.3 Resources v Appraisal

This research allowed closer examination of the main debate – which model was more appropriate to examine participants' experience of flooding – by comparing the role resources and appraisal had in facilitating an understanding of an individual's experience of flood disaster.

As previously discussed, Hobfoll intended his model to give greater weighting to the social and environmental factors that may affect stress in the individual. That it was resources, and not appraisal processes, which held the key to understanding stress. Conversely, Lazarus and Folkman posited that it was internal, behavioural processes that determined if stress existed.

It was the conclusion of this research that both resources and appraisal play an integral role in facilitating understanding of the experience of flooding. Both resources and appraisal illustrate two very different but inter-connected aspects of the individual within disaster – what external and internal factors affect stress?

Hobfoll (2001) suggests that from Lazarus and Folkman's point of view the best proximal indicator for stress levels is personal appraisal. That in order to '...obtain appraisals we must wait until the proximal-moment where stress occurs and constantly hark back to the individual for his or her assessment at that state and time. This limits predictive strength and provides few insights for groups or systems...(and that)...the study of stress appraisal has yielded little information about why people make certain appraisals...' (Hobfoll, 2001, pp. 340 – 342, researchers brackets).

This research would suggest that although it is essential to ask participants to refer constantly back to the time and place of event to ensure data collected is relevant, this does not necessarily mean that it limits the data validity or provides few insights for groups. Indeed, many of the key themes, topics and issues that arose during focus groups and case study work in Yorkshire were also evident within the in-depth interviews in Northamptonshire. These events were four years apart. It would appear that losses and coping might be generalised across groups, even when a significant amount of time has passed. This provides great opportunity for development of appropriate post-disaster intervention strategies.

It is this researchers opinion that the predictive strength of appraisal as a method for understanding loss and coping undertaken as a consequence of flooding is higher than Hobfoll may give credit for. Floods have many similar characteristics regardless of location or specific event, therefore, many of the losses experienced, coping employed to limit them and personal flood impact, provide opportunity to examine appraisal processes. Appraisal was extremely important to aid understanding of an individual's reaction to losses incurred in the event and subsequent coping employed. To disregard this process, or place emphasis elsewhere, could suggest that the individual was at the mercy of the environment and that nothing they did or could do, would be of any relevance overall.

The cognitive-appraisal model allows the researcher to examine the cognitive processes that may affect or influence the reaction to loss and the choice of coping employed. It allows questions such as 'why?' and 'how?' to be studied bringing to light both objective and subjective factors, which may impinge upon the experience.

Both authors' believe they offer a comprehensive view of stress but within this research it was clear that understanding an individual's experience of flood disaster and any subsequent loss and coping was not just dependent on the 'fit' of the model to the data. To be able to understand stress, loss and coping that may have occurred one has to be able to use the model clearly and accurately to ensure data collected on any given issue are valid and reliable. In this respect Hobfoll's COR theory facilitates examination of these issues in a clear and reproducible manner. Lazarus and Folkman's cognitive-appraisal theory is difficult to use within qualitative research, to ensure that the researcher is accurately capturing the data. This could provide opportunity for bias or ambiguity in data to creep into the findings if not carefully handled and clearly recognised.

One suggested concern relating to the COR model is Hobfoll's definition of the term 'resources'. Freund and Riediger (2001) suggest that the term 'resources' implies a specification of what they will be used for – what the goal of using the resource might be. Hobfoll appears to suggest that resources are the goal – that their use is secondary somehow to the primacy of the resource.

This research would concur with opposition presented earlier in this thesis relating to this issue as findings in this research suggest the resource may not be as important in itself, as opposed to the actual usage of it – i.e. why it is important to the person and what the person hoped to do with it. The resource becomes important once it is lost as it may prevent coping or combine to increase losses incurred. This concurs with Hobfoll's theoretical perspective relating to spiral of loss and vulnerability to loss. But in some cases resources were not even noticed as such until the movement of their loss – i.e. normality and privacy. This suggests that in some cases it may not be the resource that is important, but what it means to the person and any situation the loss may result in, that 'Resources must serve the goals rather than the other way round' (Lazarus, 2001, pp. 383).

Ultimately, this research would concur with the suggestion by Schwarzer (2001) that Hobfoll and Lazarus, are essentially arguing two sides of the same coin, which spins on the definition and use of objective and subjective resources. Both models acknowledge the value and role of resources and appraisal but 'Viewed from a process perspective, Lazarus

deals more with initial appraisal, whereas Hobfoll deals more with prior objective resource status and subsequent coping' (Schwarzer, 2001, pp. 403). They both seek to examine what has more weight in determining what is a stressful situation and the difference may be in how one asks the question.

Hobfoll may pose the question 'What things internally or externally are lacking or might I potentially lose which could affect how I can cope with this situation?' to determine whether stress will occur. Whereas Lazarus may ask 'What is my perspective on this situation I am currently, or potentially, faced with and do I think I can cope?' In both cases resources will factor in the decision making process, as will appraisal of those resources. The question is – which ultimately holds greater sway in the final transaction of person and environment as to how stressful it may be?

7.4 Objective and Subjective Loss

The issue of objective and subjective loss deserves special mention due to the complexities and subtleties surrounding the concept. Further in this chapter, losses of both a tangible and intangible nature are discussed with respect to the associated coping that was employed. Sub-divisions of the COR model resources are presented to examine the issue of duality of loss. In some cases these divisions may appear to be arbitrary or somehow unclear as to how they were determined.

In every case, each resource was identified as a direct result of being discussed by a participant in terms of its loss. These specific resource items were further categorised as to whether it was the physical loss (or damage to the item) that was being discussed or some other aspect, not so easily quantifiable.

The subjective loss of an item may not be readily observable as a loss, but it may be described as one by the participant. Therefore, it is still a loss even though to an observer's perspective it is unclear as to why. For example, the loss of a garden may mean both damage sustained to the garden and plants but also the emotional investment the resident put into making the garden as they wanted. The garden may, for some participants, be an extension of the identity of self and worthy of the level of investment they may similarly place in the home.

For those who do not enjoy gardening, or do not understand the work and effort put into creating a garden, this does not seem like much of a loss. To the individual experiencing it, it *is* a loss. The physical damage can be repaired – plants can be reinstated, soil can be aerated and the garden can be returned to its former glory or better, however, the loss of the effort, emotional attachment and care the individual invested cannot be replaced. The invading water ruins memories of what was and previous effort seems futile in the face of damage. Replacement or repair is considered in terms of 'Is it really worth it?' and thus the attachment or sentimentality associated with the item is gone. It no longer holds the level of meaning it once did.

In another case, the loss of normality as a 'resource' may be, at first, unclear as to how this is defined as a resource and secondly, how it can be 'lost'. A resource is 'something' that

the individual holds as valuable and thus will try to protect, or can be used to ensure well-being of the self via investment in another resource. How does normality fall into this definition? Normality is not a resource we can use to acquire money, cars or houses. Normality is not a resource we would first think to protect in the face of a loss-making or stressful situation. Nor is it a resource we can use to prevent losses of other types. Most people, would not even class it as a resource at all.

However, its loss can alter how we view the world, what coping options may be open to us and what other losses we can prevent. Following loss of normality the world may seem unusual and changeable, a fearful place that tests our ability to adapt. We may no longer have access to other resources we once did, that were available to us such as transportation to undertake our daily routine, feeling of control of our lives and the situations we find ourselves in, or a sense of coherence in what is actually happening around us.

The loss of normality affected residents deeply, regardless of whether they actually perceived it as a resource before the flood. Residents describe not being able to travel freely, being inconvenienced, not being able to achieve small tasks like buying lunch, having to buy bread from a different shop to the one they usually do or feeling that events are surreal. These indicators confirm – for those describing them – that a loss has taken place, regardless if the outsider concurs this. Normality is a resource because it is involved in the very fabric of our lives and its loss can impact upon us in many ways – both emotionally and physically.

Normality is not a resource that one can hold, touch, see or even confirm its presence easily. The issue here is that what is 'normal' for one person may not be normal for another – hence the difficulty in describing it, quantifying its existence and understanding when or if, it has been lost. Description of the loss in terms of coping that may have been employed to offset it, may also be a strong indicator that loss of an intangible resource such as normality as been experienced. Why employ coping if a loss has not been, or perceived to have been, experienced? What would one be coping with? It appears that the current definitions of what is a resource and the categories they fall into may require expansion to include resources of a more subjective and person specific nature that cannot be quantified as existing nor having been lost.

7.5 Research Objectives

In this section each research objective is examined individually with specific conclusions drawn and evidence presented.

7.5.1 Research Objective 1

To establish which author's work was more appropriate towards understanding an individual's experience of flooding and any subsequent loss, Hobfoll's COR Model (1989, 1998) or Lazarus and Folkman's Cognitive-Appraisal Theory (1984).

After the Case Study Interview it was quickly established that analysing data gathered using just one model might not be sufficient but the researcher was unsure as to which of the two key theories would be most suitable. Both models appear to have demonstrable

strengths when utilised within disaster research but also have certain limitations as previous research has shown.

Hobfoll's Conservation of Resources model provided immediate useful and relevant data analysis categories that covered the majority of the topics discussed by participants. The five resources categories; object, condition, personal characteristics, energy and social support, were all discussed with many brought up in conversation by the participant rather than being initiated by the researcher. This indicates that the categories were relevant to participants within these two flood situations and suggests a good fit of model to research application. The COR model also provided clear instruction to the researcher as to how the model should be used in a research context and allowed for any research hypotheses to be tested and accepted or rejected.

Although the resources codes were clearly defined, for the purposes of the research they were refined further to allow for the specific nuances of dealing with UK flood related disaster events and their discussion by participants. These were done because the second coder used for triangulation purposes queried the clarity of the existing codes and the language used. This suggests that possible further refinements to the codes depending on the research topic may be needed for other projects in line with situation specific needs or nuances.

Following this redefinition of the resources codes, object resources and social support were the easiest to use in analysis, as the boundaries of what was 'in' and what was 'out' of the category were reasonably clear. Energy and condition resources were the most difficult to use as categories for this research as they were highly subjective or difficult concepts to understand or define. This did lead to some analysis problems requiring continued evaluation of comprehension second and third coders had regarding what each code actually meant and how it was to be applied during the analysis coding stage.

As was perhaps indicated by the project objectives outlined, the researcher felt that the model might have limitations especially regarding the more intangible aspects of disaster related loss. This appears to be true as although the five resources categories adequately covered the majority of discussion and experience, there was limited provision within the model, as it currently exists for subjective resource loss.

The Cognitive-Appraisal theory by Lazarus and Folkman, 1984 offered much more scope for investigation of the subjective issues arising within disaster. The authors' work acknowledges the strong role perception has within an individual's experience of a stressful situation (in this case a flood) arsing from an imbalance of the person-environment situation. The situation is assessed as such as a result of primary and secondary appraisal processes that help the person determine if the event is threatening, loss-making or challenging and if it is irrelevant, positive or ultimately, a stressful experience.

In this respect the Cognitive-Appraisal theory is highly useful as it allows assessment and examination of the personal factors that may affect a participant's view of the flood. That it is their perception and assessment, as well as the resources they have or may have lost, which when combined, gives an overall picture of the experience of flooding. The use of

this theory was satisfactory in terms of gathering data of a subjective and intangible nature relating to feelings, perceptions, decision processes and personal impact of the floods. As such, this theory added significant value to the research overall and would be highly useful to researchers' in the future seeking to examine such subjective concepts within other disaster situations.

As has been previously discussed, loss of an item with subjective aspects associated with it seemed to be better examined using the cognitive-appraisal theory than the COR model. The COR model, although allowing for examination in some detail of the broad categories of resources, does not at this time, facilitate closer examination of subjective losses associated with each item as the theory itself is anchored firmly from an environmentalist perspective.

However, to provide a clear understanding of an individual's experience of flooding and any associated losses (the aim of this research) one must be able to utilise the model in a clear and reproducible manner. The practical usage of this theory is difficult as the category definitions of what constitutes Primary and Secondary appraisals are not clear for application purposes. The theory states what both forms of appraisal are and what decision-making may typically be observed at each point (i.e. at Primary Appraisal the individual decides if the situation is stressful, irrelevant or positive). But the model offers no guidance as to the boundaries or content of each definition. For example how can a researcher clearly identify that Primary Appraisal has taken place? What cues or statements should he/she be looking to record as evidence of this level of appraisal?

Within this research project it was necessary to develop processes for handling these questions and limitations of the theory to ensure that participant's experiences could be adequately gathered and analysed. This suggests that any subsequent use of the theory in other situations may not produce the same results as the processes, (i.e. how data were handled, pre-determined indicators of primary and secondary appraisal used and codes developed) were specific to this researcher's project needs.

Regarding examination of the losses incurred within the flood events, Hobfoll's COR model (1989) was excellent as an initial framework to categorise the losses discussed such as marital problems, cars suffering water damaged or financial expense. However participants did not simply detail losses of a physical nature and again the limitations of this theory were highlighted. When discussing loss relating to a house, the physical damage to bricks and mortar can be discussed in terms of Object Resource loss, but many also tied this loss to a second loss, that of a sense of home, security or normality, which did not fit within the existing definition of Object Resource. These losses relate to feelings, perceptions and subjective well being which, although anchored in the physical object, are essentially subjective losses specific to the individual and may not be objectively concurred.

Lazarus and Folkman's 1984 theory not only allowed for losses that were not tangible, physical items to be discussed and analysed but also provided an opportunity for any links between the two types of losses (objective and subjective) to be established. The second theory allowed participants to discuss their experiences of losses, whatever they were, in terms of their own perception of the event, the loss and how they felt. The item discussed,

be it privacy, attachment or time, was usually anchored within another loss, such as being physically unable to stop others looking into affected residents houses, a specific item such as a book lost or calendar months going by with little restoration work to show for the elapsed time. Therefore, the nature of the loss and the impact upon the individual could be more readily articulated and thus understood by the researcher.

Overall neither theory encompassed all aspects of the flood experience and any subsequent loss as described by participants. This was because each theory provided a different perspective on the experience, with Hobfoll's COR theory focusing upon the physical items or constructs that may have been lost and Lazarus and Folkman's appraisal theory concentrating on the subjective experience and internal appraisal of the event.

However, it is this researcher's opinion that of the two theories used, Hobfoll's COR theory provided the most useful and relevant framework to assess flood experience from a research design perspective. The theory is clearly constructed with ample guidance as to how it might be adapted for use in a variety of situations in a testable manner. The categories are defined and examples of the types of items that may be typically included in each are also provided. This was especially useful as participants' discussed many aspects of their experience in a narrative and semi-structured interview format rather than endorsing one item over another in a quantitative manner. The codes used did require modification of the original definitions but this was not an insurmountable issue and did provide improved scope for investigating the subject matter in detail.

7.5.2 Research Objective 2

To identify whether it was more useful to combine both Hobfoll's COR Model (1989, 1998) and Lazarus and Folkman's Cognitive-Appraisal Theory (1984) to gain a greater understanding of an individual's experience of flooding and any subsequent loss.

Following on from Objective 1, the second objective examined the concept of whether combining the two main theories would be advantageous in order to understand the participants' experience of flooding in a more holistic manner. This seems to be supportable as neither theory was sufficient on its own to encompass all the experiences and nuances of the flood event as described by participants and as previously discussed.

Hobfoll's COR theory was extremely broad and covered a wide range of the losses experienced but did not allow identification of how the event or item itself was appraised as a loss. This is important, as an external researcher cannot hope to fully understand the nature of losses experienced without some guidance as to how the individual interviewed arrived at the assumption that the loss had occurred. Furthermore, Lazarus and Folkman's Appraisal theory discusses the connection between appraisal of a loss and actual coping employed to manage that resulting situation.

The interviewee must take the researcher through the experience step by step, paying attention to the nuances of perception, personal impact, supporting factors and justification to allow the interviewer to fully understand the situation and hence, the loss. This is possibly part of the narration process, the need to translate the experience to others as a method of finding meaning, understanding and gaining control of events by persuading

others to view the situation as they who have experienced it do. To illustrate to others not directly involved, the enormity and magnitude of the event not just in terms of physical attributes such as volume of water or duration of event but also in terms of emotional, mental and personal indicators specific to the individual.

In this, Lazarus and Folkman's Cognitive-Appraisal (1984) model is perhaps more suitable as it allows recognition of the personal, the subjective and individual differences and factors which combine to form understanding of the experience and any subsequent loss. A disaster may affect many but ultimately is a personal experience with specific individual impact. As such, the personal and individual facets, be they indicators of what constitutes a loss, how that loss is defined, the positive and negative aspects of the event or simply one person's narration of the disaster, must be as important as the objectively concurred 'facts' from external agencies, media or authorities.

Some reservations regarding both theories remain as discussed in Chapter One but for research investigating disasters and their impacts Hobfoll's COR (1989) model is an excellent framework. However, if future research seeks to examine the subjective or perceptive elements of people in disasters, then Hobfoll's COR (1989) theory may be less than suitable as it gives these concepts short shift in favour of a resources focus. Future researchers may wish to examine subjective or perception-based loss within other disasters using the COR model as a framework but with greater use of the Cognitive-Appraisal theory to assess subjective issues arising within crisis events.

Therefore, it was more pertinent to combine both theories to adequately address the complexities and scope of the flood, its impact and non-affected persons understanding of the event on residents. The structure, categories and applicability of Hobfoll's COR model (1989) combines well with focus on perception and individuality of Lazarus and Folkman's 1984 Cognitive-Appraisal theory to address the various issues arising within this research project.

7.5.3 Research Objective 3

To understand if a single resource can contain both an objective and a subjective component, which can be lost as a result of a stressful experience, in this case following a flood disaster?

This objective appeared to be substantiated but to a degree. Each of the five resources categories, object, condition, personal characteristic, energy and social support, were examined for evidence of both physical and subjective elements that may have been lost from a single resource. There seems to be a duality of loss for some resources but not for all, meaning that a single resource can in some cases, be 'lost' twice.

To aid explanation of these findings the following tables were developed to show the duality of loss within a single resource. Each resource as identified by the researcher based upon definitions provided by the literature was examined within the context of the data collected to assess whether it had two aspects, which could be lost, a physical and a subjective element. Examples of the types of resources per category have been provided to illustrate the diversity and nature of the losses. In all cases the data were examined to assess

if each resource was discussed as lost in terms of physical damage (an objective loss) or in terms of other factors intrinsic in the item or construct (a subjective loss).

Personal Characteristics are not included due to the limited data to support the concept of duality of loss for this resource type. Personal characteristics were the least successful in demonstrating duality of loss because these are inherent personal traits, which may not have a physical or tangible element. The loss of a personal characteristic may have resulted in a physical activity not being undertaken or completed but this is perhaps a consequence of the lack of the personal characteristic rather than a second inherent loss of the resource. Therefore the following discusses the remaining four resources only.

Object resources (see Table One) overall were the most successful in demonstrating the concept of duality of loss in that the items detailed by interviewees were not only physically damaged by the water but also had concepts of identity, familiarity or home for example intrinsic within them. Object resources demonstrated this concept of duality of loss most comprehensively as participants discussed physical losses of items such as books, house or videotapes, which had a secondary loss attached to the object. A Bible was lost for one participant and could be objectively concurred as not existing anymore by a third party but the Bible was a present to the participant when she was fourteen and held special memories which were also lost.

Many losses reported were associated with the home with feelings of loss of familiarity, attachment, meaning, normality and habitualness discussed with relation to items lost or damaged. In most cases the objective loss was water damage to the item resulting in the object being disposed of, whereas the subjective loss related to concepts inherent within the item for the participant. The subjective loss was sometimes less well articulated or not as easily identifiable as the physical loss.

Table 1 - Object Resources

Specified Resource	Objective Element Lost	Subjective Element Lost
Furniture	Damage to item	Comfort, habitualness, home, familiarity
Fixtures and fittings	Items damaged and irreparable	Comfort, habitualness, home, familiarity
Vehicles	Vehicle written off	Pride in car, achievement of buying expensive vehicle, loss of perceived status associated with item
Accommodation	House severely damaged	Lack of 'home'
Rooms in House	Damage to room necessitating non-use for a period of time	Undefined living space, lack of normality, eating dinner in bedroom
Small Items	Loss of item	Loss of memories, attachment or meaning to item

Electrical Appliances	Damage to item	Loss of habit or convenience
Household Services	None or limited services	Inconvenience, added stress of lack of usual amenities
Garden	Loss of plants and garden items	Emotional importance in getting garden as wanted, familiarity

Table 2 - Condition Resources

Specified Resource	Objective Element Lost	Subjective Element Lost
Health	Illnesses, stress	Feeling 'under the weather', loss of motivation to continue
Marriage/relationships/partner	Partner not available, abroad	Felt partner 'wasn't there' when needed them emotionally
Security	Doors unlocked and break-in's occurred	Lack of emotional safety – regardless of security provisions, anxious about impact from further reoccurrences
Hygiene	Sewage, floodwaters in property and on effects, germs spread	Never completely got rid of smell, perception of items being so grubby they had to be thrown away even after cleaning
Normality	Daily routine disrupted, such as postal deliveries or going shopping	'Unreal' situation, like Salvador Dali painting
Privacy	Open door for builders, sightseers looking in windows, sharing rental accommodation	No space for self, intrusive questioning by others, 'on show' all the time
Physical/Mental Ability	Feeling unable to adequately manage problems or issues	Wanted to run away, shut down, felt tired or unable to keep going
Employment	Loss of income	Feeling of putting in less effort or reduced excellence at work as coping with floods

Condition resources (see Table Two) were semi-successful at demonstrating the concept in that some of the conditions stated by participants were inherently subjective to begin with, so making identification of dual loss much harder to recognise or articulate. Condition resources lost included health, relationships, security, hygiene and employment which had

tangible objectively concurred losses such as illness, partner abroad during flood, break-in's to property, germs spread by sewage and being unable to go to work due to floodwaters blocking access. They also had subjective losses which were discussed by participants such as loss of motivation to continue due to feeling 'under the weather', lack of emotional support when the participant needed it, anxiety regarding personal safety or future flood events, continual smell from the water in house which seems as if it will never go away and lack of usual performance at work.

This category is perhaps the most interesting from the perspective of identifying dual losses as the resource can be either tangible or intangible in form resulting in either an objective or subjective loss. For example a marriage or a divorce can be physically verified by the presence of a certificate but normality is a concept rather than a tangible item and it may be harder for an outsider to comprehend the loss as they may not agree or understand the existence of it in the first place. Both can be lost but it may be harder to identify the presence (and thus absence) of one over the other. Within this category the resources and the associated losses can be summarised as follows:

Physical Condition Resource resulting in an Objective Loss
For example this could typically include security as demonstrated by the physical presence of protective items or alarms on property which can be concurred to have been lost – i.e. doors do not fit properly so cannot shut leading to a security risk, or break-in by other people.

Physical Condition Resource resulting in a Subjective Loss
For example this could include employment as demonstrated by the contract of a job with a company which although still retained by the individual, has other less obvious losses for the affected person – i.e. still going to work and receiving salary but feeling that performance or effort is below usual. Here there may be no obvious loss (in no cases did participants detail that they had received any formal warning of poor performance for example) but a loss had been experienced.

Subjective Condition Resource resulting in an Objective Loss
In this case a subjective condition resource such as privacy may have objective losses associated with its absence. Privacy is highly specific to the individual and therefore subjective to one person's perception. However, its loss can be experienced in tangible terms such as the need to relocate and share accommodation, including bedrooms with children for months at a time leading to a lack of privacy, or having strangers (such as builders or sightseers) wandering around the house bringing unwelcome intrusion.

Subjective Condition Resource resulting in a Subjective loss
The final combination of resource to loss for this category is that of a subjective condition resource whose loss is experienced subjectively. This is perhaps the most difficult to understand as the outsider may not be able to identify the resource as it exists originally and any subsequent loss may be so specific to the affected person that it is hard to understand the nature and extent of that loss. In this case an example might be the condition resource of normality being subjectively lost through description of events being unreal and unbelievable.

Here normality could be lost physically (through demonstrable absence of daily patterns or routine) but also subjectively through events being perceived as fantastical, strange or highly unfamiliar compared to usual. As it is hard to know conclusively what is 'normal' for any given individual, the researcher may need to accept that commentary on this type of resource loss must be taken as truth. Especially in research where the data is collected retrospectively as true baseline data of what constitutes 'normal' is not and will not be available so here consideration may need to be taken as to the authenticity and validity of the data and its influence on results and stated findings.

These sub-categorisations go further than the original objective defined which aimed to establish if a single resource could have dual loss, objective and subjective. This research found that not only could resources incur dual losses, but also that the resource itself could be either an objective or subjective resource, which could subsequently be lost objectively or subjectively. However, this does not appear to be the case for all categories of resources and may be a finding specific to condition resources only.

Table 3 - Energy Resources

Specified Resource	Objective Element Lost	Subjective Element Lost
Time	Calendar months pass, wasted time due to inappropriate choice of coping	Feeling as if time is 'slipping away'
Experience	Tangible skills from a similar event not available	Lack of awareness and understanding of situation to choose the appropriate coping method
Money	Financial impact, reduced capacity to pay for necessary activities	Less security about future needs or confidence in ability to cope next time
Effort	Efficiency of activity reduced due to other factors	Lack of will to try, motivation decreased

Energy resources (see Table Three) were also only moderately successful in identifying the duality of loss in that some resources within this category were physical items, such as money, which could be perceived as being lost both actually (i.e. limited funds) but also conceptually (i.e. feeling able to handle any risks in the future, a psychological support for coping). However, for the most part it was difficult to establish clearly a dual loss with this type of resource. This was because the resources themselves were in some cases subjective (such as awareness or effort) but had objectively observable attributes which could be determined as having been lost – such as lack of familiarity with floods and their associated element or reduced efficiency in undertaking tasks. The difficulty here was to understand if the resource (i.e. awareness) was comprised of two elements, objective and subjective, that could be lost.

It is the opinion of this researcher that Energy Resources, with the exception of money and time, were difficult to examine for duality of loss due to the conceptual nature of the resource in the first place. No measures assessing knowledge or awareness held at the time (for example) were taken to establish tenure if this resource existed to be called upon by the individual (such as questionnaires assessing specific flood knowledge or awareness of protection campaigns for example). Had this been done by the researcher perhaps the results and discussion of this question may have been different as tangible evidence of the objective component of the resource would be clearly evident. Furthermore, even if this had been assessed, how easy is it for a person to 'lose' knowledge of a significantly impacting event?

If the question was 'Do energy resources have two elements which can be lost?' then physically an individual can have no knowledge of an issue and subjectively they could experience a perceived reduction in capacity for coping due to this lack of knowledge. But this raises the issue of if the knowledge was not objectively there in the first place, how could it be lost? It may be easy to lose a pencil or book but it is harder to establish the loss of awareness, if at all.

However, the concept of duality of loss does not require any given resource to be a physical item, which can then be lost either objectively or subjectively as explained within the discussion of condition resource loss previously. Rather a resource is a reserve either held personally or accessible by the individual, that may aid the person to complete their desired goals. Therefore, if the individual believes and or demonstrates they have effort to apply to the situation, then objectively this resource exists. Therefore, if the individual believes that to cope with a flood event they had suitable reserves of effort to apply to the situation, which later became depleted then a loss has occurred. This is however a grey area and one which requires further examination perhaps using other non-qualitative techniques to establish true presence of the resource originally.

Table 4 - Social Support Resources

Specified Resource	Objective Element Lost	Subjective Element Lost
Family	Not available to help for whatever reason, lack of physical assistance	Others do not care, lack of understanding of flood effects
Friends	Not available to help for whatever reason, lack of physical assistance	Others do not care, lack of understanding of flood effects
Community	Not available to help for whatever reason, lack of physical assistance	Others do not care, lack of understanding of flood effects
Relationship	Obstructive, lack of help	Trust, others do not care,
Other Affected	Not available to help as dealing with effects themselves	Lack of community spirit after initial 'honeymoon' period, competition for resources

Other Non-affected	Interference due to 'disaster tourists', additional people in the area disrupting recovery	Lack of privacy, feeling 'on show', intrusion, others pleasure gained as a result of loss to self
Media	Lack of interest by public, diminished awareness raising opportunities	Feeling 'on show', lack of privacy, intrusion
Officials	Lack of tangible support, sub-standard assistance, disinterest	Feeling let down, abandoned to fend for self, loss of trust in officials
Contracted	Not available due to depletion of resource by all affected (i.e. builders needed everywhere), sub-standard work due to contractors taking on too much, price hikes due to demand	Feeling others are benefiting from the loss, added stress to manage the 'cowboys'

Social support resource loss (see Table Four) of both an objective and subjective nature was clearly identifiable. A tangible lack of support or a physical absence of presence of a person or organisation could be identified as an objective loss initially within discussion, with subjective losses described afterwards. Here individuals reported family not available to help clean up after the flood, but also feeling abandoned with a lack of understanding from others or being left helpless as other less tangible losses discussed.

This category of resource was simpler to identify and delineate between objective and subjective resource loss, as the physical aspect of the loss was the demonstrable absence of the person, group or organisation. The subjective loss of the resource was perception based, how the individual felt or viewed a certain situation. In some cases participants described how friends came to visit, so in reality the social support was available, but the interviewee felt that the other person did not understand the situation or was insensitive. Thus a loss of sorts was experienced, as the participant did not gain the level of support they had required or expected.

7.5.4 Research Objective 4.1

If a single resource contains dual components, which element of the loss (the objective or the subjective one) has the greater impact upon the individual?

Although it appeared that resources could have both objective and subjective elements that could be lost, unfortunately this research provides inconclusive evidence to answer this particular question relating to which had the greater impact. Research suggested that the objective element of the loss affected participants greatly within the immediate post-impact period as priority for responsive action. Rectifying damage to property, replacing loss of physical items and returning living conditions to a relative normality were all key activities undertaken in the weeks and months following the events. The realisation of having been flooded and witnessing the damage and destruction caused to objects, the loss of conditions

such as marital or family support and the erosion of energy resources such as time or money were immediately or short-term significantly important to residents.

Later, the subjective element of the loss seems to have come to light. Damage to property combined with media attention resulted in unwanted 'sightseers' peering in resident's windows. Many felt a lack of privacy in the weeks and months after the event as a result of being flooded. Damage to the house also resulted in a loss of a sense of 'home' where furnishings were unfamiliar and inadequate in comparison to those previously owned. In some cases four years after the event participants discussed their house in detached tones, as if something had been lost that was irrecoverable and was not a physical item that one could go out and buy to 'solve' the problem. Where items lost were replaced, participants discussed the memories or meaning that the original item had for them, which they were unable to recover. A small trinket costing less than a pound had little material worth but its personal significance was immeasurable to its owners. The loss of the item was saddening to participants but the realisation that it was gone forever and with it the memories and attachment held appears to have left a greater impact lasting much longer.

A lack of tangible support from friends and family or authorities was perceived as unhelpful and was a resource unavailable to some (hence regarded as a loss when it was expected but not received) but the emotional impact this loss had may have been more significant. Many residents either expected or hoped that others would come to their aid, tell them what to do, help them clean up or offer support or assistance as they could, which in some cases was received. However, there was a limitation to this help and the spirit of altruism was not continuous or everlasting. Those not affected may not have realised the sustained assistance needed to cope with the situation and its emerging problems. Some residents felt let down by friends or family not making an effort to travel to see them others that the help offered was inadequate or even caused more stress. Participants appeared to have been personally affected and perhaps surprised by the lack of help they received and this impact lasted longer than the time period of physical assistance they may have initially required. This seems in part to be connected to a need for recognition by others that the situation is serious and is 'disastrous' in some way.

Therefore, this research cannot comprehensively determine if one element of a resource loss – the objective or subjective component – impacted more upon the individual than the other. Perhaps to examine this question in greater detail it would be necessary to ask specific questions resulting in evidential data, which could clearly determine which was more affecting for the individual. This research did not ask specifically 'Was it the objective or subjective element of the loss of X resource that affected you the most?' because the concepts of tangible and intangible losses were difficult to explain without leading the interviewee and inserting bias. Also, the researcher wanted to assess if such information could arise naturally within a qualitative discussion.

This was supported to a certain degree as narration of the incident focused initially on the physical losses and when participants were asked, 'What loss affected you most and why?' The conversation about a certain item evolved into discussion about what it actually meant in non-physical terms for the individual as distinct from the actual absence of the item. From emotions displayed, non-verbal cues and discussion at this point in many interviews

it is the personal belief of the researcher that the subjective component of the resource may have a longer reaching impact. However, this question cannot be answered conclusively.

7.5.5 Research Objective 4.2

Research objective 4.2 examined if a single resource contained dual components, how does the individual cope with loss of the objective element compared to loss of the subjective element? Furthermore, are there any differences in the approach employed by participants? In order to examine this objective each transcript was coded using problem focused, emotion focused and disengagement focused coping strategies as per previous definitions in relation to each type of resource loss described by participants. Participants did not endorse items on a questionnaire rather their discussion was coded for evidence of coping used within the categories defined. It appeared that in several cases the existing codes were not comprehensive enough and nine extra codes were developed. (On the tables that follow these codes are marked 'Extra' for ease of recognition). These codes, their assignment to any particular category and the transcript coding were triangulated using the method outlined previously and inter-rater reliability was acceptable.

Building upon previous findings it appeared that some resources might contain dual components allowing for the possibility that some differences in coping employed by participants may have occurred. Tables were created to examine each resource loss both its objective and subjective element, in relation to the coping method employed as discussed with participants. Throughout this section discussion centres upon the most frequently observed relationships between loss and coping although the tables illustrate all cases reported. Please refer to Appendix E for a complete table of coping codes and their associated meanings used in this section.

7.5.5.1 Objective Resource Loss x Problem Focused Coping

See Table 5. Objective loss of Furniture (47 counts) showed a tendency amongst those interviewed to use an Active Coping approach to deal with the physical loss of the item or Seeking Social Support for Instrumental Coping. Most of those who used an Active coping approach tended to take direct action to get around the problem (Problem A4). Of those who used Seeking Social Support for Instrumental Reasons many found talking to someone who could do something concrete about the problem (Problem PE4) or getting help from others to solve the problem (Problem PE5 Extra) were utilised.

Subjective loss of Furniture was barely mentioned and the one count (1 Count) reported related to the participant attempting to cope with the loss by talking to someone who could do something concrete about the problem (Problem PE4). There were no reports of an objective or subjective loss of furniture resulting in the use of either Suppression of Competing Activities (Problem PC1 – 4) or Restraint Coping (Problem PD1 – 4).

Participants reporting an Objective loss of Fixtures and Fittings (14 counts) showed a tendency to use Seeking Social Support for Instrumental Reasons and in particular Problem PE4 and PE5 as before. A few reported the use of Active Coping methods, such as taking direct action to get around the problem but none used either Suppression of Competing Activities (Problem PC1 – 4) or Restraint Coping (Problem PD1 – 4). There were no Subjective losses of fixtures and fittings reported.

Objective loss of Vehicles was only mentioned three times by participants (3 counts) and these losses were coped with using Seeking Social Support for Instrumental Reasons, Problem PE4 and PE5 respectively. Again, there were no subjective losses for this resource reported.

Objective loss of Accommodation (86 counts) was the most discussed Object Resource loss overall with most using Seeking Social Support for Instrumental Reasons (Problem PE4 and PE5) to cope with losses described. Active Coping was also used to a lesser extent with most in this category taking additional action to try and get rid of the problem (Problem PA1) or taking direct action to get around the problem (Problem PA4). There was only one case (1 count) relating to subjective loss of accommodation in which the participant did what had to be done one step at a time (Problem PA3).

Objective loss of Structural resources was briefly discussed by participants (5 counts) and these losses were coped with either using Active Coping or Seeking Social Support for Instrumental Reasons. In the former Problem PA1 and PA2 (taking additional action to try and get rid of the problem or concentrating efforts on trying to do something about it) were used and in the latter category Problem PE4 and PE5 once again. There were no reports of subjective losses of this type of resource discussed.

Small Items were discussed and objectively lost by participants (14 counts) with an equal split between use of Active coping and Seeking Social Support for Instrumental Reasons. Again there were no reports of subjective loss of this type of resource. Sentimental Items were also reported as objective losses (5 counts) with most using Problem PA4 (Took direct action to get around the problem) and there was only one case (1 count) of subjective resource loss of sentimental items. In this case the participant took additional action to try and get around the problem (Problem PA1).

Objective loss of Electrical items (11 counts) suggested that most participants used Problem PE4 (talking to someone who could do something concrete about the problem) to cope with the loss. Slightly less took direct action to get around the problem (Problem PA4). Again, there were no reports of subjective loss of this resource. Services were reported as an objective loss by a small number of participants (4 counts) and there was no clear type of coping used nor did any interviewees suggest that they experienced subjective loss of this resource. Finally, the loss of Garden as a resource was only mentioned once in relation to problem focused coping and the participant used Problem PE4 to cope.

Table 5 - Object Resource Loss X Problem Focused Coping

Problem Focused Coping	Furniture		Furniture		Fixtures & Fittings		Fixtures & Fittings		Vehicles		Vehicles		Accommodation		Accommodation		Structural		Structural		Small Items		Small Items		Sentimental Items		Sentimental Items		Electrical		Electrical		Services		Services		Garden		Garden		ROW TOTALS
	OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE	
Problem PA1	3				1								7				1				3						1				1								17
Problem PA2	3												1				1				2																		7
Problem PA3	4												7		1										1				1										14
Problem PA4	11				2								12								1				3				3				1						33
																																						SUB-TOTAL		71
Problem PB1																					2																		2
Problem PB2	2												2																										4
Problem PB3																																							
Problem PB4																																							
																																						SUB-TOTAL		6
Problem PC1																																							
Problem PC2																																							
Problem PC3																																							
Problem PC4																																							
Problem PC5 extra																																							
																																						SUB-TOTAL		0
Problem PD1																																							
Problem PD2					1								1																2										4
Problem PD3																																	1						1
Problem PD4																																							
																																						SUB-TOTAL		5
Problem PE1													1																										1
Problem PE2	1												1																										2
Problem PE3													1																										1
Problem PE4	13		1		5				2				24				2				4								5						1				57
Problem PE5 extra	10				5				1				29				1				2				1								1						50
																																						SUB-TOTAL		111
COLUMN TOTALS	47		1		14				3				86		1		5				14				5		1		11				4				1		193

7.5.5.2 Object Resource Loss x Emotion Focused Coping

See Table 6. Participants reporting Object Resource losses did not use Turning to Religion as an Emotion Focused Coping method at any stage. There were marginally more participants who reported using Positive Reinterpretation and Growth than Acceptance as a coping method for dealing with Objective Furniture loss (20 counts). In the former category most looked for something good in what happened (Emotion EB1) and in the latter the second highest scoring coping used to deal with this resource loss was accepting it had happened and that it cannot be changed (Emotion EC2). There were no subjective losses of this resource reported.

Fixtures and Fittings were reported as objective losses only (10 counts) and there was an equal split of people who reported using Acceptance and Positive Reinterpretation and Growth to deal with these losses. These participants tended to use Emotion EC1 (Learned to live with the situation) or Emotion EB1 (Looked for something good in what happened) to cope.

There were 9 counts of objective Vehicle losses and no subjective losses of this resource reported. The majority used Emotion EE2 (Let feelings out), which is classified as Focus on and Venting of Emotions coping.

Objective loss of Accommodation was the most reported object resource loss using emotion focused coping to deal with this (85 counts). Most participants appeared to use Focus on and Venting of Emotions to cope and within this category Emotion EE6 (Felt someone was to blame for the situation) was the most used coping method. There were six reported cases of subjective loss of Accommodation as a resource (6 counts) and these mainly used Acceptance as a coping method. Within this category there was an even split between learning to live with the situation (Emotion EC1) and accepting that it has happened and that it cannot be changed (Emotion EC2).

Objective loss of the Structural resource showed no clear majority in coping used. However, marginally more people used Acceptance to deal with the loss than any other coping method. Once again there was no discussion of subjective loss of the structural resource and hence no coping cases. Small items were mainly objectively lost with most utilising Emotion EC2 within the Acceptance category to cope. There was a reasonably equal spread of participants who appeared to use all coping methods apart from Turning to Religion (Emotion ED1 – ED4). Again there was no subjective resource loss reported. Most who discussed objective losses of Sentimental Items used Acceptance as the main coping method and learned to live with the situation (Emotion EC1).

Electrical Items were reported as objectively lost only with the majority using Acceptance to cope once again, in particular Emotion EC2 – accepted that it has happened and that it cannot be changed. Services and Garden resources were also only objectively lost and for the former Emotion EE6 Extra (Felt someone was to blame for the situation) was used and for the latter Acceptance coping was employed with an equal spilt between Emotion EC1 and EC2.

Table 6 - Object Resource Loss X Emotion Focused Coping

Emotion Focused Coping	Furniture OBJECTIVE	Furniture SUBJECTIVE	Fixtures & Fittings OBJECTIVE	Fixtures & Fittings SUBJECTIVE	Vehicles OBJECTIVE	Vehicles SUBJECTIVE	Accommodation OBJECTIVE	Accommodation SUBJECTIVE	Structural OBJECTIVE	Structural SUBJECTIVE	Rooms OBJECTIVE	Rooms SUBJECTIVE	Small Items OBJECTIVE	Small Items SUBJECTIVE	Sentimental Items OBJECTIVE	Sentimental Items SUBJECTIVE	Electrical OBJECTIVE	Electrical SUBJECTIVE	Services OBJECTIVE	Services SUBJECTIVE	Garden OBJECTIVE	Garden SUBJECTIVE	ROW TOTALS
Emotion EA1																							
Emotion EA2							1																1
Emotion EA3																							
Emotion EA4							9																9
																					SUB-TOTAL		10
Emotion EB1	5		3				6		2				2						1				19
Emotion EB2	2		2				1						1		1								7
Emotion EB3	2						8		1				2										13
Emotion EB4																							
																					SUB-TOTAL		39
Emotion EC1	2		4		2		9	2	3				1		4		2		1		2		32
Emotion EC2	4		1		1		6	2	2				5	1	2		5		2		2		33
Emotion EC3																							
Emotion EC4																							
																					SUB-TOTAL		65
Emotion ED1																							
Emotion ED2																							
Emotion ED3																							
Emotion ED4																							
																					SUB-TOTAL		0
Emotion EE1							3																3
Emotion EE2	1				5		8						1		2								17
Emotion EE3																							
Emotion EE4																							
Emotion EE5extra							2																2
Emotion EE6extra	1						17	2	2				3		1				3				29
																					SUB-TOTAL		51
Emotion EF1	1						2												2				5
Emotion EF2							1						1										2
Emotion EF3	2				1		6						3										12
Emotion EF4							1																1
																					SUB-TOTAL		20
Emotion EG1extra							1																1
Emotion EG2extra							2		1				1										4
Emotion EG3extra							2		1		1						1						5
																					SUB-TOTAL		10
COLUMN TOTALS	20		10		9		85	6	12		1		20	1	10		8		9		4		195

7.5.5.3 Object Resource Loss x Disengagement Focused Coping

See Table 7. Overall this type of coping had limited employment to deal with the loss of Object Resources. However, objective loss of Furniture used mainly Mental Disengagement to cope with the loss and objective loss of Accommodation resulted in the use of Disengagement Focused coping Denial, Behavioural Disengagement and Mental Disengagement mainly. There was no clear pattern of which type was used more than the others to cope with the losses described.

Table 7 - Object Resources X Disengagement Focused Coping

Disengagement Focused Coping	Furniture OBJECTIVE	Furniture SUBJECTIVE	Fixtures & OBJECTIVE	Fixtures & SUBJECTIVE	Vehicles OBJECTIVE	Vehicles SUBJECTIVE	Accommodation OBJECTIVE	Accommodation SUBJECTIVE	Structural OBJECTIVE	Structural SUBJECTIVE	Rooms OBJECTIVE	Rooms SUBJECTIVE	Small Items OBJECTIVE	Small Items SUBJECTIVE	Sentimental OBJECTIVE	Sentimental SUBJECTIVE	Electrical OBJECTIVE	Electrical SUBJECTIVE	Services OBJECTIVE	Services SUBJECTIVE	Garden OBJECTIVE	Garden SUBJECTIVE	ROW TOTALS
Diseng DA1																							
Diseng DA2																							
Diseng DA3																							
Diseng DA4							2																2
																						SUB-TOTAL	2
Diseng DB1																							
Diseng DB2			1																				1
Diseng DB3							1																1
Diseng DB4	1						1																2
																						SUB-TOTAL	4
Diseng DC1	1						2																3
Diseng DC2																							
Diseng DC3																							
Diseng DC4																							
Diseng DC5extra	1												1										2
																						SUB-TOTAL	5
Diseng DD1																							
																						SUB-TOTAL	0
Diseng DE1extra							1																1
																						SUB-TOTAL	1
COLUMN TOTALS	3		1				7						1										12

7.5.5.4 Condition Resource Loss x Problem Focused Coping

See Table 8. Objective loss of Health Resource (14 counts) was coped with using either Active Coping or Seeking Social Support for Instrumental Reasons. In the former category participants appeared to use Problem PA1 – Took additional action to try and get rid of the problem and in the latter category Problem PE4 – Talked to someone who could do something concrete about the problem. There was only one case of subjective resource loss of Health (1 count) and this participant used Problem PE4 also.

Relationships were hardly mentioned with regards to problem focused coping with only two cases (2 counts) of objective resource lost mentioned and no subjective losses. In both cases Problem PA3 – Did what had to be done one step at a time was used to cope. Objective loss of Security (34 counts) appeared to be very important with most using either Active Coping method Problem PA4 (Took direct action to get around the problem) or Seeking Social Support for Instrumental Reasons method Problem PE5 Extra (Getting help from others to solve the problem) to cope. The few participants that discussed subjective losses of Security (Emotional Safety) used Seeking Social Support for Instrumental Reasons again with slightly more using Problem PE5 Extra.

Objective loss of Hygiene as a resource was coped with by participants using a predominantly Active Coping method but there was no one approach that was utilised more than others. Again, there was no subjective loss of this resource reported. Normality was discussed with most objectively experienced losses (10 counts) coped with using an Active Coping approach, in particular Problem PA4 – Took direct action to get around the problem. Subjective loss of Normality (5 counts) used mainly Active Coping as a coping method. Finally participants reporting objective loss of Privacy (4 counts) used mainly Seeking Social Support for Instrumental Reasons to cope. There were no cases of subjective losses relating to Privacy.

7.5.5.5 Condition Resource Loss x Emotion Focused Coping

See Table 9. Objective loss of Health (13 counts) that was coped with using an Emotion Focused Coping method demonstrated no clear preferred method. However, most counts were in relation to using Emotion EC2 (Accepted that it had happened and that it cannot be changed) – an Acceptance coping method. There were no subjective losses of this resource reported. Objective loss of Relationships (13 counts) was dealt with mainly using an Acceptance coping method with slightly more cases using Emotion EC2 coping. Subjective losses of the Relationship resource (4 counts) used Focus in and Venting of Emotions to deal with the loss, with most cases using Emotion EE6 Extra – Felt someone was to blame for the situation.

Objective loss of Security (18 counts) used mainly Focus on and Venting of Emotions to cope with the majority of cases utilising Emotion EE6 Extra once again. Cases of Subjective loss of Security (Emotional Safety) were higher than for objective loss with 25 counts of this loss using emotion focused coping in some way. The clear majority used Emotion EE5 Extra – Was worried about the situation/continual checking within the Focus on and Venting of Emotions category to cope with these losses.

Loss of Hygiene as a resource was mainly objective (3 counts) with slightly more use of Acceptance as a coping method but no discernable pattern. Subjective loss of Hygiene (1 count) used the same coping method as for objective losses for this resource. For Objective loss of Normality (16 counts) it appeared that most participants used Acceptance to cope with this loss with the majority using Emotion EC1 (Learned to live with the situation). Subjective Normality losses (11 counts) showed a roughly equal spilt between several coping methods but the majority once again using Emotion EC1. Finally, Objective loss of Privacy (6 counts) and Subjective loss of Privacy (3 counts) both used Acceptance as a preferred coping method with Emotion EC2 (Accepted that it happened and that it cannot be changed) as the majority choice.

7.5.5.6 Condition Resource Loss x Disengagement Focused Coping

See Table 10. Few cases of loss reported used Disengagement Focused Coping to deal with the losses experienced. However, cases relating to Objective loss of Health (3 counts) used mainly Alcohol/Drug use to cope with the loss and those relating to Subjective loss of Normality (3 counts) used Denial to cope with the loss.

7.5.5.7 Energy Resource Loss x Problem Focused Coping

See Table 11. The majority of losses in this category related to objective loss of Knowledge (34 counts) and were coped with using mainly Seeking Social Support for Instrumental Reasons. In particular Problem PE3 (Talked to someone to find out more about the situation) was used most. There were no subjective losses for this resource. Objective loss of Time (8 counts) elicited no clear preferred coping method however, half of cases used Active coping (Problem PA1 – PA4). The one subjective loss of Time discussed (1 count) used Problem PB4 (Tried to grow as a person as a result of the experience). Finally objective loss of Money (5 counts) used only Seeking Social Support for Instrumental Reasons and the majority coping method Problem PE4 (Talked to someone who could do something concrete about the problem).

7.5.5.8 Energy Resource Loss x Emotion Focused Coping

See Table 12. Analysis of transcripts relating to Objective loss of Knowledge (13 counts) suggested that most favoured use of Focus on and Venting of Emotions. In particular over half of cases used Emotion EE6 Extra indicating that they felt someone was to blame for the situation. The single case of subjective loss of Knowledge (1 count) also used the same coping method.

Objective loss of Time (8 counts) used Acceptance as the main coping method employed to deal with loss, with an equal spilt between Emotion EC1 and EC2 – learned to live with the situation and accepted that it had happened and that it cannot be changed. Participants reporting Subjective losses of Time (2 counts) also used Emotion EC2 to cope. Finally objective loss of Money (29 counts) used either Emotion EC2 or Emotion EE6 Extra to cope with the losses, with slightly more favouring the coping method that someone was to blame for the situation (EE6 Extra). There were no subjective losses for this resource reported.

Table 8 - Condition Resources X Problem Focused Coping

Problem Focused Coping	Health		Health		Relationship		Relationship		Security		Security		Hygiene		Hygiene		Normality		Normality		Privacy		Privacy		ROW TOTALS
	OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		OBJECTIVE		SUBJECTIVE		
Problem PA1	4								2				1				2				1				10
Problem PA2									1																1
Problem PA3	2				2												2		2						8
Problem PA4									11				1				4		1						17
SUB-TOTAL																									36
Problem PB1									1																1
Problem PB2									1																1
Problem PB3									1																1
Problem PB4																									
SUB-TOTAL																									3
Problem PC1																									
Problem PC2																									
Problem PC3																									
Problem PC4																									
Problem PC5 extra																									
SUB-TOTAL																									0
Problem PD1																									
Problem PD2	1																								1
Problem PD3																									
Problem PD4																									
SUB-TOTAL																									1
Problem PE1																					1				1
Problem PE2	1																								1
Problem PE3									1																1
Problem PE4	4		1						5		1		1						1		2				15
Problem PE5 extra	2								11		2						2		1						18
SUB-TOTAL																									36
COLUMN TOTALS	14		1		2				34		3		3				10		5		4				76

Table 9 - Condition Resources X Emotion Focused Coping

Emotion Focused Coping	Health OBJECTIVE	Health SUBJECTIVE	Relationship OBJECTIVE	Relationship SUBJECTIVE	Security OBJECTIVE	Security SUBJECTIVE	Hygiene OBJECTIVE	Hygiene SUBJECTIVE	Normality OBJECTIVE	Normality SUBJECTIVE	Privacy OBJECTIVE	Privacy SUBJECTIVE	ROW TOTALS
Emotion EA1													
Emotion EA2										1			1
Emotion EA3													
Emotion EA4										1			1
												SUB-TOTAL	2
Emotion EB1	1		1				1		2				5
Emotion EB2			1										1
Emotion EB3			1			2				1			4
Emotion EB4													
												SUB-TOTAL	10
Emotion EC1	1		3		1	2	1		9	3	2		22
Emotion EC2	4		4		3		1	1	4	2	3	2	24
Emotion EC3												1	1
Emotion EC4					1								1
												SUB-TOTAL	48
Emotion ED1													
Emotion ED2													
Emotion ED3													
Emotion ED4													
												SUB-TOTAL	0
Emotion EE1	1		1	1		2			1	1			7
Emotion EE2	2		1		3	1				1	1		9
Emotion EE3													
Emotion EE4	1												1
Emotion EE5extra					2	17							19
Emotion EE6extra	2		1	3	7	1							14
												SUB-TOTAL	50
Emotion EF1										1			1
Emotion EF2					1								1
Emotion EF3	1												1
Emotion EF4													
												SUB-TOTAL	3
Emotion EG1extra													
Emotion EG2extra													
Emotion EG3extra													
												SUB-TOTAL	0
COLUMN TOTALS	13		13	4	18	25	3	1	16	11	6	3	113

Table 10 - Condition Resources X Disengagement Focused Coping

Disengagement Focused Coping	Health OBJECTIVE	Health SUBJECTIVE	Relationship OBJECTIVE	Relationship SUBJECTIVE	Security OBJECTIVE	Security SUBJECTIVE	Hygiene OBJECTIVE	Hygiene SUBJECTIVE	Normality OBJECTIVE	Normality SUBJECTIVE	Privacy OBJECTIVE	Privacy SUBJECTIVE	ROW TOTALS
Diseng DA1			1							2			3
Diseng DA2													
Diseng DA3													
Diseng DA4										1			1
SUB-TOTAL													4
Diseng DB1													
Diseng DB2													
Diseng DB3													
Diseng DB4													
SUB-TOTAL													0
Diseng DC1	1								1			1	3
Diseng DC2													
Diseng DC3													
Diseng DC4													
Diseng DC5extra													
SUB-TOTAL													3
Diseng DD1	2												2
SUB-TOTAL													2
Diseng DE1extra													
SUB-TOTAL													0
COLUMN TOTALS	3		1						1	3		1	9

Table 11 - Energy Resources X Problem Focused Coping

Problem Focused Coping	Knowledge OBJECTIVE	Knowledge SUBJECTIVE	Time OBJECTIVE	Time SUBJECTIVE	Money OBJECTIVE	Money SUBJECTIVE	ROW TOTALS
Problem PA1			1				1
Problem PA2	1						1
Problem PA3			1				1
Problem PA4	3		2				5
SUB-TOTAL							8
Problem PB1	2						2
Problem PB2							
Problem PB3	2						2
Problem PB4				1			1
SUB-TOTAL							5
Problem PC1							
Problem PC2							
Problem PC3							
Problem PC4							
Problem PC5 extra							
SUB-TOTAL							0
Problem PD1							
Problem PD2			3				3
Problem PD3							
Problem PD4							
SUB-TOTAL							3
Problem PE1	2						2
Problem PE2							
Problem PE3	13						13
Problem PE4	6		1		4		11
Problem PE5 extra	5				1		6
SUB-TOTAL							32
COLUMN TOTALS	34		8	1	5		48

Table 12 - Energy Resources X Emotion Focused Coping

Emotion Focused Coping	Knowledge OBJECTIVE	Knowledge SUBJECTIVE	Time OBJECTIVE	Time SUBJECTIVE	Money OBJECTIVE	Money SUBJECTIVE	ROW TOTALS
Emotion EA1							
Emotion EA2	1						1
Emotion EA3							
Emotion EA4							
SUB-TOTAL							1
Emotion EB1							
Emotion EB2							
Emotion EB3	4				4		8
Emotion EB4							
SUB-TOTAL							8
Emotion EC1			4		3		7
Emotion EC2	1		4	2	9		16
Emotion EC3							
Emotion EC4							
SUB-TOTAL							23
Emotion ED1							
Emotion ED2							
Emotion ED3							
Emotion ED4							
SUB-TOTAL							0
Emotion EE1							
Emotion EE2					1		1
Emotion EE3							
Emotion EE4							
Emotion EE5extra							
Emotion EE6extra	7	1			11		19
SUB-TOTAL							20
Emotion EF1							
Emotion EF2					1		1
Emotion EF3							
Emotion EF4							
SUB-TOTAL							1
Emotion EG1extra							
Emotion EG2extra							
Emotion EG3extra							
SUB-TOTAL							0
COLUMN TOTALS	13	1	8	2	29		53

7.5.5.9 Energy Resource Loss x Disengagement Focused Coping

See Table 13. Only two cases of energy loss using disengagement focused coping was discussed. These related to objective loss of Knowledge and objective loss of Time and both used Diseng DC5 Extra – a Mental Disengagement coping method in which participants demonstrate a lack of interest in activities going on around them or the situation.

7.5.5.10 Social Support Resource Loss x Problem Focused Coping

See Table 14. Objective loss of Family (5 counts) as a resource showed that in most cases either an Active Coping or Seeking Support for Instrumental Reasons approach was employed. There were no cases of subjective loss reported for this resource. One case of objective Community resource loss was coped with using Problem PA3 – Did what had to be done one step at a time. Objective loss of Officials and Authorities (3 counts) used predominantly Seeking Support for Instrumental Reasons (Problem PE4 and PE5 Extra) and subjective loss of the same resource used Problem PE4 also. Finally, objective loss of Contracted resources (5 counts) used mainly an Active Coping approach with most losses coped with by taking additional action to get around the problem (Problem PA1). The two cases of subjective Contracted loss (2 counts) showed no commonality of coping approach used.

7.5.5.11 Social Support Resource Loss x Emotion Focused Coping

See Table 15. Objective loss of Family resources using Emotion Focused Coping (6 counts) showed slightly more preference for Acceptance coping and in particular Emotion EC2 – Accepted that it has happened and that it cannot be changed. The one case of subjective loss of Family as a resource (1 count) used Emotion EE6 Extra – Focus on and Venting of Emotions, specifically, that someone was to blame for the situation. Although loss of Friends as a resource was discussed in both objective (3 counts) and subjective (2 counts) terms there was no clear pattern of loss to coping employed.

Objective loss of Community (12 counts) suggested an almost equal spilt between using Acceptance coping methods and Focus on and Venting of Emotions to deal with the loss with slightly more cases favouring Emotion EE6 Extra – that someone was to blame. Regarding subjective losses of Community (3 counts) participants discussed losses in relation to Acceptance Coping methods employed – either Emotion EC1 or EC2.

Objective losses relating to Officials and Authorities were significant (24 counts) with the clear majority using Emotion EE6 Extra – felt someone was to blame for the situation, to cope. There were no subjective losses for this resource. Finally, objective loss of Contracted resources (24 counts) showed that many preferred to use Focus on and Venting of emotions to cope with the loss, in particular Emotion EE6 Extra once again. Again, there were no subjective losses for this resource and coping method discussed.

7.5.5.12 Social Support Resource Loss x Disengagement Focused Coping

The single case of resource loss using this type of coping method was objective loss of Community in which the participant used Diseng DE1 Extra – Felt they fared worse than others. This is a Negative Comparison category and was not significantly endorsed. There

were no subjective losses reported for this type of coping method. There is no table to illustrate this.

Table 13 - Energy Resources X Disengagement Focused Coping

Disengagement Focused Coping	Knowledge OBJECTIVE	Knowledge SUBJECTIVE	Time OBJECTIVE	Time SUBJECTIVE	Money OBJECTIVE	Money SUBJECTIVE	ROW TOTALS
Diseng DA1							
Diseng DA2							
Diseng DA3							
Diseng DA4							
SUB-TOTAL							0
Diseng DB1							
Diseng DB2							
Diseng DB3							
Diseng DB4							
SUB-TOTAL							0
Diseng DC1							
Diseng DC2							
Diseng DC3							
Diseng DC4							
Diseng DC5extra	1		1				2
SUB-TOTAL							2
Diseng DD1							
SUB-TOTAL							0
Diseng DE1extra							
SUB-TOTAL							0
COLUMN TOTALS	1		1				2

Table 14 - Social Support Resources X Problem Focused Coping

Problem Focused Coping	Family OBJECTIVE	Family SUBJECTIVE	Friends OBJECTIVE	Friends SUBJECTIVE	Community OBJECTIVE	Community SUBJECTIVE	Officials OBJECTIVE	Officials SUBJECTIVE	Contracted OBJECTIVE	Contracted SUBJECTIVE	ROW TOTALS
Problem PA1									3		3
Problem PA2									1	1	2
Problem PA3	1				1						2
Problem PA4	2										2
SUB-TOTAL											9
Problem PB1											
Problem PB2											
Problem PB3											
Problem PB4											
SUB-TOTAL											0
Problem PC1											
Problem PC2											
Problem PC3											
Problem PC4											
Problem PC5 extra											
SUB-TOTAL											0
Problem PD1											
Problem PD2											
Problem PD3											
Problem PD4											
SUB-TOTAL											0
Problem PE1											
Problem PE2											
Problem PE3											
Problem PE4							1	1	1		3
Problem PE5 extra	2						2			1	5
SUB-TOTAL											8
COLUMN TOTALS	5				1		3	1	5	2	17

Table 15 - Social Support Resources X Emotion Focused Coping

Emotion Focused Coping	Family OBJECTIVE	Family SUBJECTIVE	Friends OBJECTIVE	Friends SUBJECTIVE	Community OBJECTIVE	Community SUBJECTIVE	Officials OBJECTIVE	Officials SUBJECTIVE	Contracted OBJECTIVE	Contracted SUBJECTIVE	ROW TOTALS
Emotion EA1											
Emotion EA2			1								1
Emotion EA3											
Emotion EA4	1				1						2
SUB-TOTAL											3
Emotion EB1	1										1
Emotion EB2											
Emotion EB3							2		3		5
Emotion EB4											
SUB-TOTAL											6
Emotion EC1	1		1		3	1	1		3		10
Emotion EC2	2				3	2			6		13
Emotion EC3											
Emotion EC4											
SUB-TOTAL											23
Emotion ED1											
Emotion ED2											
Emotion ED3											
Emotion ED4											
SUB-TOTAL											0
Emotion EE1				1							1
Emotion EE2	1				1				3		5
Emotion EE3											
Emotion EE4											
Emotion EE5extra											
Emotion EE6extra		1	1	1	4		21		9		37
SUB-TOTAL											43
Emotion EF1											
Emotion EF2											
Emotion EF3											
Emotion EF4											
SUB-TOTAL											0
Emotion EG1extra											
Emotion EG2extra											
Emotion EG3extra											
SUB-TOTAL											0
COLUMN TOTALS	6	1	3	2	12	3	24		24		75

7.5.6 Summary of Table Findings

Overall most participants, although recognising the loss of a subjective form of a resource discussed, did not appear to actually employ a specific and/or different coping mechanism to deal with the two types of loss. In some cases this did occur and where appropriate this is discussed later in this section. This lack of conclusive evidence may be because 'a loss is a loss' and participants may have regarded their own losses, both objective and subjective, as indistinguishable from each other, hence not requiring separate coping methods. Therefore, this research cannot conclusively distinguish what type of coping was used to deal with which loss in all cases discussed. However, trends were observed in the data relating to the category of resource lost (i.e. condition or energy) and the coping approach used by the majority of participants in response and these are discussed herein.

The majority of all losses reported were coped with using Emotion-Focused coping (436 counts), followed closely by Problem-Focused coping (330 counts) and with very few using Disengagement Focused coping (24 counts). The most used coping method was a Problem-Focused technique, 'Seeking Social Support for Instrumental Reasons' (187 counts) but the most used single coping strategy was 'Felt someone was to blame for the situation' (Emotion EE6 extra with 99 counts) which is an Emotion-Focused technique and was added as an extra code. The second most frequently used coping method was 'Focus on and Venting of Emotions' (164 counts) and the second most commonly used technique was a combination of 'Talked to someone who could do something concrete about the situation' (Problem E4 with 86 counts) and 'Accepted that it has happened and that it cannot be changed' (Emotion EC2 also with 86 counts).

This suggests that interviewees reacted to the flood and the subsequent loss-making situation in an emotion-focused manner, which supports previous discussion relating to whether the sample was biased in any way by virtue of those who agreed to participate. If indeed the sample was biased, containing a majority of those who may have coped in one specific way, then it follows that the results may reflect this in some manner. It is the opinion of this researcher that the sample may be biased by containing individuals who coped with the flood using emotional techniques and those who declined to be involved may have used more problem-solving and/or disengagement techniques instead. However this is purely conjecture, as the researcher has no way of knowing how the potential participants did actually cope. Also, it is worth noting that the actual difference between losses using an emotion-focused coping method and those using a problem-focused method is only 106 counts.

7.5.6.1 Object Resources

See Table 16. Overall coping with Object Resource loss elicited a predominantly Problem-Focused approach (111 counts) to an object loss using 'Seeking Social Support for Instrumental reasons'. This was followed closely by a second Problem-Focused approach, that of 'Active Coping' (71 counts). Emotion Focused coping was used to a lesser extent with 'Acceptance' (65 counts) and 'Focus on and Venting of Emotions' (51 counts) suggesting that a physical loss within this group produced a physical response – to try and solve the problem by whatever means available. However, this does not mean to say the emotional impact of the event and its associated losses were not felt as the use of the

'venting of emotions' category may suggest. 'Mental Disengagement' was used most as a disengagement coping technique but at nominal levels (10 counts).

This agrees with the researchers own perception of the participants and their reactions to the questions being asked within the interview. Most were 'matter of fact' about the event and discussed their own response to it in the immediate aftermath in terms of the practical aspects that had to be attended to as a matter of priority. When asked how they felt about the event, most shrugged their shoulders and stated that it could not be changed, showing this level of acceptance regarding the matter. However, when questioned further about their losses several became upset and discussed how they felt at the time clearly illustrating the emotional impact and upset they had felt at the time in response to the event.

Loss of Accommodation as a resource was the only resource that was coped with using two separate methods. The objective loss used Seeking Social Support for Instrumental Reasons, Active Coping or Focus on and Venting of Emotions whereas the subjective loss of the same resource elicited Acceptance as a coping response.

Table 16 Object Resources - Objective Element Loss x Coping Used

Specified Resource	Coping Used
Furniture	Active Coping/ Seeking Social Support for Instrumental Reasons/ Positive Reinterpretation and Growth
Fixtures and fittings	Seeking Social Support for Instrumental Reasons / Positive Reinterpretation and Growth / Acceptance
Vehicles	Seeking Social Support for Instrumental Reasons / Focus on and Venting of Emotions
Accommodation	Seeking Social Support for Instrumental Reasons / Active Coping / Focus on and Venting of Emotions
Small Items	No clear preference
Electrical Appliances	Acceptance / Seeking Social Support for Instrumental Reasons
Household Services	No clear preference
Garden	Acceptance
Sentimental Items	Acceptance

7.5.6.2 Condition Resources

See Tables 17 and 18. Overall participants used a predominantly Emotion Focused approach to cope with this type of resource loss, namely 'Focus on and Venting of Emotions' (50 counts) closely followed by 'Acceptance' (48 counts). To a lesser extent Problem Focused coping was used with 'Active Coping' and 'Seeking Social Support for Instrumental Reasons' both equal use (36 counts). Use of Disengagement Coping was negligible (9 counts).

There was a small difference between the coping used to deal with the loss of the objective or subjective element of a condition resource. The physical loss tended to elicit an emotion-focused approach combined with problem-focused coping, whereas the subjective element used mainly emotion-focused with some disengagement coping.

Table 17 Condition Resources - Objective Element Loss x Coping Used

Specified Resource	Coping Used
Health	Seeking Social Support for Instrumental Reasons/ Focus on and Venting of Emotions
Marriage/relationships/partner	Acceptance
Security	Seeking Social Support for Instrumental Reasons / Active Coping / Focus on and Venting of Emotions
Hygiene	No clear preference
Normality	Acceptance / Active Coping
Privacy	Acceptance

Table 18 Condition Resources - Subjective Element Loss x Coping Used

Specified Resource	Coping Used
Health	No Data
Marriage/relationships/partner	Focus on and Venting of Emotions
Security	Focus on and Venting of Emotions
Hygiene	No Data
Normality	Acceptance / Active Coping / Denial
Privacy	Acceptance

The loss of security as a resource elicited more subjective counts (25 counts) than objective ones (18 counts) resulting in Emotion focused coping. However, the objective loss of Security as a resource overall was 52 counts to 28 counts – objective loss to subjective loss. Perhaps implying that the physical loss of security (absence of locks on doors and threat of break-in) was more important that the loss of emotional safety.

The loss of normality as a resource produced almost comparable counts objectively and subjectively (27 objective counts and 19 subjective counts) compared to other resource losses. This suggests that participants may have been more aware of the dual loss with this type of resource compared to other losses, however due to the relatively small sample size this may just be an anomaly within the participant group.

7.5.6.3 Energy Resources

See Table 19. On the whole 'Seeking Social Support for Instrumental Reasons' was used by participants in coping with their energy resource losses (32 counts), closely followed by 'Acceptance' (23 counts) and 'Focus on and Venting of Emotions' (20 counts). The most frequent loss reported was that of an objective loss of knowledge – i.e. a tangible lack of information to act upon (47 counts). This suggests that out of all energy resource losses, this may have had significant impact upon the individual. Indeed, this loss of knowledge or information tended to be discussed in terms of blame – who was responsible for withholding or failing to deliver the knowledge?

Again, although during discussion the concept of subjective losses had arisen during coding of specific subjective losses/coping used very few actually explicitly stated how they coped with the intangible loss. Of those that did, there were no strong trends that differed from the objective losses reported.

Table 19 Energy Resources – Objective Element Loss x Coping Used

Specified Resource	Coping Used
Knowledge	Seeking Social Support for Instrumental Reasons / Focus on and Venting of Emotions
Time	Acceptance / Active Coping
Money	Acceptance / Focus on and Venting of Emotions

7.5.6.4 Social Support Resources

See Table 20. Overall 'Focus on and Venting of Emotions' (43 counts) was used to cope with the loss of Social Support resources. The second highest frequency was 'Acceptance' (23 counts) suggesting that on the whole, participants coped with this type of loss in an emotion-focused manner. Interestingly, interviewees experienced the loss of Official support more than any other and many apportioned blame to them regarding the perceived lack of support or assistance they required (21 counts). There was no real difference in coping used between objective and subjective losses.

Table 20 Social Support Resources - Objective Element Loss x Coping Used

Specified Resource	Coping Used
Family	Active Coping / Acceptance
Friends	No preference
Community	Acceptance
Officials	Focus on and Venting of Emotions
Contracted	Acceptance

7.6 Positive and Negative Aspects of the Research

This research highlighted the methodological implications and constraints that may be faced when examining a disaster event such as access to participants or acquisition of a representative population. Furthermore, it must be highlighted that if more interviews could have been conducted with others who were non-contactable, reluctant to participate or held different views to those interviewed, then it is possible different findings could have resulted. However, similar results and common themes were found in both locations from participants commenting upon different events, some four years apart. This suggests good validity in the findings presented within the thesis.

One issue that the researcher was concerned with was the potential for her intervention to cause distress. Although full ethical procedures were adhered to some became visibly upset but even when asked several times if they would like to discontinue the interview, none did. It is this researcher's impression that many had never had the opportunity to talk with an interested person about their experiences or had someone else ask them 'What was it like for you?' As some alluded to throughout the course of the interviews, friends, relatives and neighbours may have believed the event was over and therefore did not require any further discussion. It seems this is not the case.

Some participants from Northamptonshire were crying during the interview and were surprised that although four years had passed since the event, the impact it had was not diminished. However, not one person who became visibly upset wanted to call the

therapists number supplied by the researcher but seeing people crying over a situation she had prompted discussion on was hard for the researcher.

Coding of subjective and highly complex issues relating to loss required extra time to ensure that all codes developed were appropriate and usable to ensure interrater reliability. Only one set of coding, that of coping, was in a pre-defined format to transfer directly onto the data. The COR theory did have defined categories but each lacked strong definition and boundaries, making coding complicated. The Cognitive-Appraisal theory was even less defined in terms of how a researcher should or could use the designations of primary or secondary appraisal.

There was also confusion early on in the research regarding what to code within a given transcript. In many cases the discussion was in the past tense but in some cases participants talked about future possibilities and courses of action. The decision was taken to code all data, past, present and future as it became clearer throughout the project that the event and its impact may last for some time and did not clearly fit into 'phases' as is suggested by disaster models.

The use of qualitative data collection and analysis was highly relevant and useful to this research as the sensitive nature of the issue and the complex concepts that were under discussion were better examined in interview format. This research concluded that the use of quantitative data collection was inappropriate as first thought. However, it was felt that a check, in the form of a questionnaire, should be inserted to assure the researcher that the decision to continue in a qualitative manner was right and justified.

The qualitative methodological approach worked extremely well in allowing participants ample time and space to discuss their views without restrictions or limitations placed upon them. The sensitive nature of the themes under discussion in a face-to-face setting allowed for greater openness and trust towards the researcher. This intimate situation facilitated better conversation about the floods and their impact. Using a semi-structured approach during the questioning allowed the researcher to gently guide the participant where necessary back onto the topic in hand or provide prompts to 'jog' the memory of the individual. The researcher felt that using either a structured or totally unstructured approach would be unhelpful as the conversation may be too rigid and biased towards the researchers aims, or be too loose, allowing the participant to 'wander' verbally.

It was frustrating and at times disheartening when participants 'dropped out' of the project, failed to turn up for appointments or were less talkative than others. However these were balanced by the surprise that so many people who had been seriously affected both physically (in terms of their property) and emotionally by the flood, were open, trusting and interested in helping the researcher with her project. Genuinely, many were relieved to have been able to discuss their fears, thoughts and anxieties, some up to four years after the event, about the flood and the researcher felt extremely privileged to be trusted in this way. This level of trust extended to personal contacts being passed on, photographs and videos loaned to the researcher to make copies and displays of emotion during the interviews.

Finally, it was gratifying to the researcher to hear from both affected persons and professional responders alike that research of this nature was both welcome and needed in the field. From the perspective of those interviewed many felt it was good to have an 'outsider', someone who had not directly experienced the event, to be interested in the effect and impact the event had upon residents. In some way the research gave those affected a voice. From the professional's perspective, some were well aware that the neutrality of the researcher was an asset when speaking to affected persons as many residents harboured resentment towards those responsible for dealing with the aftermath of such an incident. Therefore, views and discussion about the two events could be gathered in a non-confrontational setting by a person (the researcher) and not perceived as biased in any way, which was a distinct advantage

8.0 Conclusions and Recommendations

8.1 Introduction

This chapter presents the conclusions arising from this project and recommendations for further research with the implications this project and its findings may have upon the wider fields of disaster, psychology and emergency management will be discussed.

8.2 Conclusions

8.2.1 Research Objective 1

Neither Hobfoll's 1989 COR model nor Lazarus and Folkman's 1984 Cognitive-Appraisal theory were sufficient on their own to provide a complete understanding of an individual's experience of flooding. Hobfoll's COR model provided relevant data analysis categories that covered the majority of the topics discussed by participants in relation to losses but resource codes were found to be limiting and not comprehensive enough. The Cognitive-Appraisal theory by Lazarus and Folkman, 1984 offered scope for investigation of the subjective issues arising within disaster and acknowledged the strong role perception had within an individual's experience of a flood. This theory was satisfactory in terms of gathering data relating to feelings, perceptions, decision processes and personal impact of the floods. However, was difficult to use in terms of practical application of some appraisal categories. Of the two theories used, Hobfoll's provided the most useful and relevant framework to assess flood experience from a research design perspective.

8.2.2 Research Objective 2

Following on from Objective 1, it appeared to be advantageous to combine the strengths of both models to address the research questions within this project rather than use one on its own. Neither theory was sufficient on its own to encompass all the experiences and nuances of the flood event as described by participants and as previously discussed. Hobfoll's COR theory was extremely broad and covered a wide range of the losses experienced but did not allow identification of how the event or item itself was appraised as a loss. Lazarus and Folkman's Cognitive-Appraisal (1984) model allowed recognition of the personal, the subjective and individual differences and factors which combine to form understanding of the experience and any subsequent loss.

8.2.3 Research Objective 3

A single resource can contain both objective and subjective elements, which can be lost as a result of a stressful experience such as a flood but not all resources can and in some cases one resource can be 'lost' twice. Object, Condition and Social Support resources all demonstrated this but Personal Characteristic and Energy Resources did not. Object resources were the most successful in demonstrating the concept of duality of loss in that the items detailed by interviewees were not only physically damaged by the water but also had concepts of identity, familiarity or home for example intrinsic within them which were also lost.

8.2.4 Research Objective 4.1

Although it appeared that resources could have both objective and subjective elements that could be lost, unfortunately this research provided inconclusive evidence to answer which element lost had greater impact upon the individual. Research suggested that the objective element of the loss affected participants greatly within the immediate post-impact period as priority for responsive action. Later, the subjective element of the loss seems to have come to light. A small trinket costing less than one pound had little material worth but its personal significance was immeasurable to its owners. The loss of the item was saddening to participants but the realisation that it was gone forever and with it the memories and attachment held appears to have left a greater impact lasting much longer. This research could not comprehensively determine if one element of a resource loss – the objective or subjective component – impacted more upon the individual than the other.

8.2.5 Research Objective 4.2

Although this research supported the notion that a single resource contained dual components, patterns of individual coping methods with respect to the objective or subjective loss sustained could not be conclusively determined. Furthermore, there were only slight differences in the approach employed by participants towards some losses but no strong trend could be determined.

This research suggested that overall resource loss from flooding was coped with using Emotion-Focused methods (436 counts), closely followed by use of Problem-Focused coping (330 counts) and with little use of Disengagement-Focused coping (24 counts). However, there were some small differences in coping approach used for the loss sustained of the Object Resource Accommodation. The objective loss elicited Seeking Social Support for Instrumental Reasons, Active Coping or Focus on and Venting of Emotions to cope whereas the subjective loss of the same resource elicited Acceptance as a coping response. Object resources overall elicited a Problem-Focused coping approach suggesting that a tangible loss required a tangible coping method from participants whereas the other resources, more subjective in nature, did not show a clear coping preference.

There was a small difference between the coping used to deal with the loss of the objective or subjective element of a condition resource. The physical loss tended to elicit an emotion-focused approach combined with problem-focused coping, whereas the subjective element used mainly emotion-focused with some disengagement coping. Security was slightly different to the other condition resource losses in that it was a loss felt more acutely subjectively rather than objectively. This suggests that although locks on doors, intruders or a potential reoccurrence of flooding may have been concerning to participants, the lack of emotional safety they felt after the floods impacted more. However due to the relatively small sample size this may just be an anomaly within the participant group. Overall, research findings could not state patterns of individual losses to coping used for the objective and subjective element of any single resource.

8.2.6 Hierarchy of Affectedness

Those affected by flooding may use a reappraisal strategy for finding meaning following loss by comparing oneself to others who are perceived as worse off suggesting that there may be an informal 'Hierarchy of Affectedness' at work. This may have its own criteria

influencing how the individual perceives their own experience and compares it in line with others in a similar position. Reassessing personal experience using these factors may help the participant subconsciously determine their own level of affectedness from the flood and thus cope with the event. Factors possibly influencing the individuals perception of their experience in relation to others may include; volume of water, extent of damage to property, nature and type of items lost (including sentimental items lost), prior experience, social support or official help, methods of coping chosen or available, duration of event, time taken to recover from event, resources such as financial, technical or knowledge and prior warning.

8.2.7 Role of Resources

The impact of the disaster appeared to be mitigated to some extent by the variety and or availability of resources to call upon to cope with the situation and also the presence of resource loss to gain. Those with strong or plentiful resources available to call upon (such as relevant and appropriate social support, time, money or a proactive nature) seemed to discuss fewer adverse effects. Prior experience was helpful to some in that they knew what to expect although this may have negatively influenced their view of the situation, as they also knew therefore, how long recovery could take and the problems they could face. Many interviewed discussed that when resources were lacking it was harder for them to cope with the event and its impact. Also, limited availability of resources impaired some individual's ability to cope effectively.

8.2.8 Imprint of the Event

An emotional or mental imprint of the event is clearly evident in participants interviewed as many even several years afterwards were clearly still emotionally affected and in some cases others discussed their worry over future floods. Furthermore, the 'disaster syndrome' (Lifton and Olsen, 1976, pp. 5) that the authors observed was also described by participants in both samples with interviewees in this research. Many discussed their apathy towards activities, a withdrawal from daily life and an overall constriction in living standards due to damage sustained, relocation or secondary issues.

8.2.9 Narration of the Flood 'Story'

Many interviewed found the act of story-telling their experiences to another person after either a short or longer period of time to be cathartic. This narration appeared to be closely linked to making sense of finding meaning within the event via verbal and non-verbal means. Many retold their experiences in a staged manner from beginning to end, taking time to recount every vital detail and if necessary, covering topics more than once. Stages discussed were the pre-event period before the flood hit, the flood impact, the first twenty-four hours, the first week, the longer term and the end, whereby the property had been returned to relative normality, packaging their event into a story with defined periods. Some talked openly about very personal and sensitive issues whilst others preferred to skirt the issues that were more upsetting to them. Trust appeared to be a key factor in participants 'opening up' to the researcher about their experiences.

8.2.10 Search for Meaning

Many interviewed discussed activities undertaken in the weeks and months following the event to preserve the meaning their home had for them. Several wanted their property to be

redecorated exactly as it was before the flood, perhaps to try and preserve the memories inherent within the home. Others used the flood as an opportunity to change the décor and start afresh perhaps suggesting that they had come to terms with the loss. Nearly all interviewed sought answers from authorities, media or each other to why the flood had happened, what were the finer details of the event, who was to blame and what was being done about it. This was to gain knowledge but perhaps also to make sense, find a meaning for what happened and to start putting the pieces back together of their life as it was.

8.2.11 Positive Aspects of Disasters

There is support for the presence of a positive impact of disasters as several participants did discuss such matters. A common phrase used by participants was that 'they were all in the same boat' – ironic considering the nature of the disaster. Several participants did discuss the event in terms of having acquired new coping skills such as an ability to manage vast volumes of paperwork, handle trades persons, become forceful when required with others and becoming more confident in their own ability to deal with unusual situations. The honeymoon period (McLean and Johnes, 2000 and Raphael, 1986) seems to have occurred and was beneficial for a period of time with community members working together or helping each other but this did not last. Eventually even those who were affected began competing amongst themselves for resources, information or help as rumours, backbiting and conflict marred the positive community spirit that had existed. Overall however most found the flood to be negative and with few redeeming features.

8.3 Recommendations

Following the conclusions outlined previously in this section and from the issues raised throughout this thesis, options for further research building upon this project are provided.

8.3.1 Recommendation One

Wider use of the two key models in natural disasters research

One key aspect of this research was that flood affected participants suffered some form of loss or disruption to their home life and/or daily routine. Many of the losses experienced were household items or home related (physical items for example) which may not be applicable for other types of disaster such as an air or rail crash. Both Hobfoll's Conservation of Resources model and Lazarus and Folkman's Cognitive-Appraisal theory could be researched within other disasters primarily affecting the home to assess if the categories defined are applicable in other contexts, such as volcano or earthquake. Therefore, a natural disaster where loss of life has not occurred but severe disruption and losses are evident would be most appropriate to validate the findings in this research and test the applicability of the models to other contexts. Ideally this would be within a UK based event and population, before transferring to other countries.

8.3.2 Recommendation Two

Use of Hobfoll's COR model within other disaster events

Use of this model could be extended to research examining the influence of resources in technological disasters. Technological disasters may not necessarily involve the home as this research has done, so it may be relevant to examine the limitations or scope of the resources categories within other events. This may also expand the content of each resource category to further develop the COR model into resources per type of event – i.e. flood,

aircraft or volcano. There may be sub-divisions of flood resources involving home, personal property or so on to generate categories that are specifically useable within certain contexts. This will assist in determining if a pattern of resources, content of each category and loss is common across various disastrous events or context specific.

8.3.3 Recommendation Three

Conduct a follow up study of the Yorkshire focus groups and affected community

To establish if findings and results from this group were specific to those interviewed or general to flood-affected persons it may be necessary to conduct a second set of interviews with Yorkshire participants four to five years after the Autumn 2000 event. This may help determine if findings and results reached by this researcher are sample specific or can be generalised across groups within similar time frames. Ideally a cross-comparison of findings could be examined with both the Yorkshire and Northamptonshire groups four years after their respective events. This would not only aid validation of findings from this research project but also assess if patterns of experience, perception or resources are evident.

8.3.4 Recommendation Four

Expand and refine category definitions in Hobfoll's COR model

This research has demonstrated that the COR theory whilst a useful framework, may require further redefinition. In some cases resources categories were vague or overlapped (i.e. is a relationship a condition resource or a social support resource or both?) causing some confusion. It may be useful to define the boundaries and requirements for each resource item to aid identification for its inclusion into any given category so that overlap is minimised. This could result in a more comprehensive list of resource categories, contents within them or amended definitions to cope with the context specific requirements of the research. Therefore, instead of one COR model there may be several versions available for use within different contexts or research needs, the original COR framework, the natural disasters COR framework and the technological COR framework for example.

8.3.5 Recommendation Five

Conduct further research to examine the concept of a 'hierarchy of affectedness' within affected populations

The concept of a 'hierarchy of affectedness' within post-disaster communities may require further research. The rules or factors, which may govern how one person is perceived as being more or less affected than another, could be identified to establish whether a pattern could be determined. This could be in conjunction with established methods of identifying those most at need within disasters by response officials (i.e. criteria such as those who are directly affected, severity of impact, families with young children or the elderly) when determining appropriate action or assistance. This may help pinpoint the informal assessment process and its associated criteria for identifying affectedness by those directly involved. Furthermore, emergency management officials when deciding appropriate and specific responsive action could use this information in conjunction with existing formal decision-making processes.

8.3.6 Recommendation Six

Further research into Condition Resources

One specific finding was that Condition Resources may be tangible as well as subjective in origin and can be 'lost' both objectively and subjectively. Further research is required to establish if this finding is common to other contexts or an anomaly within this project only. If so, it may expand upon the Conservation of Resources model by supporting the notion that not only can a resource loss be objective and/or subjective, but also the resource itself before the loss can be tangible or intangible. Subsequently, a four-way framework of resource to loss could be developed to further attempt to refine the patterns (if any) of resources and their associated losses, to the wider field of coping. This research examined Condition Resources only within the project definitions but further research may identify similar findings within other resource categories.

8.3.7 Recommendation Seven

Encourage more use of qualitative methodologies within disaster research

This project aims to bridge the gap between disasters and psychology by using qualitative techniques that are methodologically clear and reproducible, involving two separate disciplines. Previous research has provided substantial quantitative data relating to costs, impact, duration and technical content of the event. However, qualitative aspects of the event, how it felt, what people thought, gathering opinion based on experience and understanding perception with a view to broadening academic and professional responders understanding are also highly important. Within the field of disaster research this methodology could be the core data collection and analysis technique to gain greater insight into the complex and subjective factors that influence or affect an individual within a disaster.

Suggested considerations for future researchers include using qualitative methodologies for the entire disaster research project not just the hypothesis generation, supporting research or case study stages and ensuring steps taken and methodological decisions are clearly presented to increase the likelihood of replica projects being undertaken within other disaster contexts or countries. Semi-structured interview techniques and questioning appeared to produce more comprehensive answers and allowed participants to expand upon what they felt was important. However, in some cases structured questioning, following significant item development may be more productive if a specific pattern is to be identified between factors of a subjective nature. Non-verbal cues should be noted carefully and in context to ensure that what is being said is what is really meant by the participant. If in doubt, clarify the last statement in light of possible conflicting non-verbal actions. Within interviews of a potentially upsetting nature or sensitive content as disaster research can be, discussion can be emotive and fragmented so it is important to ensure you are recording all data accurately and fully. This can be valuable data to aid a researchers understanding of the participant's experience of the event.

8.3.8 Recommendation Eight

Practical Implications for practitioners arising from this research

This research suggests that several avenues for appropriate post-disaster intervention could be explored by those responsible for assisting residents in the aftermath of the event.

1. When cleaning up after the water has gone, ensure that residents do not throw anything out until they are sure it cannot be repaired. This especially applies to photographs and items of sentimental value. Although the item may not be totally repairable or recoverable, it may be better than throwing it away, especially if it has meaning or significance for the individual. In some cases photographs in particular can be restored – thus alleviating losses further.
2. Authorities must acknowledge that the response and recovery phases of a disaster do not only involve repairing damaged buildings or addressing transportation needs. Some losses are not easily observable and their impact may affect individuals for some time to come. It may be appropriate to provide residents with access to counsellors or support teams later on, once the initial danger/clean up phase has passed.
3. Local authorities and emergency responders should provide adequate information to residents as to what actions they should take to deal with floodwater, what provisions (such as cleaning equipment and skips) they may need and how to go about acquiring these. Provision could be made for residents to obtain these items from authorities as part of the emergency response assistance provided rather than purchased. Residents with poor knowledge or no prior experience to draw upon tried to manage the situation as best they could but often appeared to have wasted valuable time and resources.
4. Authorities may wish to consider use of informal networks that have been established since the floods. Residents tended to use informal social support resources such as friends and family to provide assistance cleaning up, moving wet items out of the house and finding out information.
5. Information and visible support in terms of local visits by authorities were badly lacking in both locations, with many residents left disillusioned about the level and nature of support or assistance they could expect to receive. Authorities should ensure that regular and comprehensive updates are provided via local, and or national, radio (at least) to help dispel rumours and instil faith in residents regarding authorities activities by visiting affected sites.

Reference List

1. Alexander, D., (1993), *Natural disasters*, UCL Press Limited, London, UK.
2. Alexander, D., (2000), *Confronting Catastrophe New Perspectives on Natural Disasters*, Terra Publishing, UK.
3. Altman, I., and Low, S. M., (1992), *Place Attachment*, Human Behavior and Environment Advances in Theory and Research Series, (Eds.), Vol. 12, Plenum Press, London.
4. Antonovsky, A., (1979), *Health, Stress and Coping*, Jossey-Bass, London, UK.
5. Appley, M.H., and Trumbull, R., (1986), *Dynamics of Stress, Physiological, Psychological and Social Perspectives*, Appley, M.H., and Trumbull, R., (Eds.), Plenum Press, New York.
6. Bowlby, J., (1982), 'Attachment and Loss: Retrospect Prospect', in *American Journal of Orthopsychiatry*, Vol. 52, pp. 664 – 678.
7. Brende, J.O., (1998), 'Coping With Floods: Assessment, Intervention and Recovery Processes for Survivors and Helpers', in *Journal of Contemporary Psychotherapy*, Vol. 28, no. 2, pp. 107 – 139.
8. Britton, N.R., Moran, C.C., and Correy, B., (1994), 'Stress Coping and Emergency Disaster Volunteers: A Discussion of Some Relevant Factors', in *Disasters, Collective Behaviour and Social Organization*, Dynes, R.R., and Tierney, K.J., (Eds.), University of Delaware Press, Newark.
9. Cannon, W.B., (1932), *The Wisdom of the Body*, Norton, New York.
10. Carver, C.S, (1997), 'You Want to Measure Coping But Your Protocol's Too Long: Consider the Brief COPE', in *International Journal of Behavioural Medicine*, Vol. 4, pp. 92 – 100.
11. Carver, C.S, Scheier, M.F., and Weintraub, J.K., (1989), 'Assessing Coping Strategies: A theoretically based approach', in *Journal of Personality and Social Psychology*, Vol. 56, No. 2, pp. 267 – 283.
12. Chalmers, B.E., (1981), A Selective Review of Stress: Some Cognitive Approaches Taken a Step Further', in *Current Psychological Reviews*, (1), pp. 325 - 343
13. Coates, T., and Fordham, M., (2000), 'You can't replace memories – What disaster reveal about home and identity', *Presentation at 'Geographics of Home' Conference*, University College London, 8-9 December 2000 (also see www.anglia.ac.uk/geography/dsp/you-cant-replace-memories.doc).
14. Costa, P.T., Somerfield, M.R., and McCrae, R.R., (1996), 'Personality and Coping: A Reconceptualization', in *Handbook of Coping Theory, Research, Applications*, Moshe, Z., and Endler, N.S., (Eds.), John Wiley and Sons Inc, USA.
15. Cox, T., (1978), *Stress*, MacMillan Press, London.
16. Coyne, J.C., Aldwin, C., and Lazarus, R.S., (1981), 'Depression and Coping in Stressful Episodes', in *Journal of Abnormal Psychology*, Vol. 90, No. 5, pp. 439 – 447.
17. Coyne, J.C., and Racioppo, M.W., (2000),'Never the Twain Shall Meet? Closing the Gap Between Coping Research and Clinical Intervention Research', in *American Psychologist*, June, Vol. 55, No. 6, pp. 655 – 664.
18. Davis, J., and Lambert, R., (1995), *Engineering In Emergencies A Practical Guide for Relief Workers*, IT Publications, UK.

19. Easterby-Smith, M., Thorpe, R., and Lowe, A., (2002), *Management Learning: An Introduction*, 2nd Edition, SAGE Publications, London, UK.
20. Ellis, C., (1998), 'Exploring Loss Through Autoethnographic Inquiry: Autoenthnographic Stories, Co-Constructed Narratives, and Interactive Interviews', in *Perspectives on Loss: A Sourcebook*, Harvey, J.H., (Ed), Taylor and Francis, USA.
21. Environment Agency, (1998), *Environment Agency Response to the Independent Report on the Easter 1998 Floods - Action Plan*, November 1998.
22. Environment Agency, (2001), North East Region, Autumn 2000 Floods Review
23. Folkman, S., and Lazarus, R.S., (1985), 'If it Changes it Must be a Process: Study of Emotion and Coping During Three Stages of a College Examination', in *Journal of Personality and Social Psychology*, Vol. 48, No. 1, pp. 150 – 170.
24. Folkman, S., and Moskowitz, J.T., (2000), 'Positive Affect and the Other Side of Coping', in *American Psychologist*, June, Vol. 55, No. 6, pp. 647 - 654.
25. Fordham, M., (1997), 'The Moray Floods (1st – 2nd July 1997) – A short report on the flooding in Moray, Scotland based on interviews with some of those involved', *Disaster Studies Project*, Anglia Polytechnic University, Geography Department, UK.
26. Freedy, J.R., Saladin, M.E., Kilpatrick, D.G., Resnick, H.S., and Saunders, B.E., (1994), 'Understanding Acute Psychological Distress Following Natural Disaster', in *Journal of Traumatic Stress*, Vol. 7, No. 2., pp. 257 – 273.
27. Freedy, J.R., Shaw, D.L., Jarrell, M.P., and Masters, C.R., (1992), 'Toward an Understanding of the Psychological Impact of Natural Disasters: An application of the Conservation of Resources Model', *Journal of Traumatic Stress*, Vol. 5, No. 3, pp. 441 – 454.
28. Frese, M., (1986), 'Coping as a Moderator and Mediator Between Stress at Work and Psychosomatic Complaints', in *Dynamic of Stress Physiological, Psychological and Social Perspectives*, Appley, M.H., and Trumbull, R., (Eds.) Plenum Press, New York.
29. Freund, A.M., and Riediger, M., (2001), 'What I have and What I Do – The Role of Resource Loss and Gain Throughout', in *Applied Psychology: an International Review*, July, Vol. 50, No. 3, pp. 370-380.
30. Gibbs, M.S., (1989), 'Factors in the Victim that Mediate Between Disaster and Psychopathology: A Review', in *Journal of Traumatic Stress*, Vol. 2, No. 4, pp. 489 – 514.
31. Gross, R., (1992), *Psychology – The Science of Mind and Behaviour*, Third Edition, Hodder and Stoughton, UK.
32. Hale-Haniff, M., and Pastor, A., (1999), *'Co-Constructing Subjective Experience: A Constructivist Approach'*, Presentation at Mind-4 Conference, Dublin City University, Ireland, August 1999.
33. Hart, C., (2000), *Doing A Literature Review – Releasing the Social Science Research Imagination*, SAGE Publications, UK.
34. Harvey, .A., and Miller, E., (1998), 'Toward a Psychology of Loss', in *Psychological Science*, 9, pp. 429 – 434.
35. Harvey, J.A., (1996), *Embracing their Memory: Loss and the Social Psychology of Storytelling*, Allyn and Bacon, Boston, USA.

36. Harvey, J.H., (2001), 'The Psychology of Loss as a Lens to a Positive Psychology', in *American Behavioural Scientist*, Vol. 44, No. 5, pp. 838 – 853.
37. Harvey, J.H., Stein, S.K., Olsen, N., Roberts, R.J., Lutgendorf, S.K., and Ho, J.A., (1995), 'Narratives of Loss and Recovery from a Natural Disaster', in *Journal of Social Behavior and Personality*, Vol. 10, No. 2, pp. 313 – 330.
38. Hobfoll, S.E., (1989), 'Conservation of Resources – A New Attempt at Conceptualizing Stress', in *American Psychologist*, March, pp. 513-524.
39. Hobfoll, S.E., (1998), *Stress, Culture and Community: The psychology and philosophy of stress*, Plenum Press, New York.
40. Hobfoll, S.E., (2001), 'The Influence of Culture, Community, and the Nested –Self in the Stress Process: Advancing Conservation of Resources Theory', in *Applied Psychology: An International Review*, July, Vol. 50, No. 3, pp. 337-421.
41. Holahan, C.J., Moos, R.H., and Schaefer, J.A., (1996), 'Coping, Stress Resistance, and Growth: Conceptualizing Adaptive Functioning', in *Handbook of Coping Theory, Research, Applications*, Ziedner, M., and Endler, N.S., (Eds.), John Wiley and Sons Inc, USA.
42. Jones, S., (1985), 'Depth Interviewing', in *Applied Qualitative Research*, Chapter 3, Walker, R., (Ed.), Gower, UK, pp. 45 - 55.
43. Kaiser, C.F., Sattler, D.N., Bellack, D.R., and Dersin, J., (1996), 'A Conservation of Resources Approach to a Natural Disaster: Sense of Coherence and Psychological Distress', in *Journal of Social Behavior and Personality*, Vol. 11, No. 3, pp. 459 – 476.
44. Krohne, H.W., (1993), *Attention and Avoidance*, (Ed.), Hogrefe and Huber, USA.
45. Kubler-Ross, E., (1969), *On Death and Dying*, Macmillan, New York.
46. Kvale, S., (1996), *Interviews*, SAGE, London.
47. Lazarus, R.S., (1966), *Psychological Stress and the Coping Process*, McGraw Hill, New York
48. Lazarus, R.S., (1993), 'Coping Theory and Research: Past, Present and Future', in *Psychosomatic Medicine*, American Psychosomatic Society, Vol. 55, pp. 234 – 247.
49. Lazarus, R.S., (2000), 'Toward Better Research on Stress and Coping', in *American Psychologist*, June, Vol. 55, No. 6, pp. 665 - 673.
50. Lazarus, R.S., (2001), 'Conservation of Resources Theory (COR): Little More Than Words Masquerading as a New Theory', in *Applied Psychology: An International Review*, July, Vol. 50, No. 3, pp. 381 – 392.
51. Lazarus, R.S., and Folkman, S., (1984), *Stress, Appraisal and Coping*, Springer Pub Co., USA.
52. Leach, J., (1994), *Survival Psychology*, Palgrave Macmillan, UK
53. Lee, T.W., (1999), *Using Qualitative Research Methods in Organizational Research*, SAGE Publications, London, UK.
54. Lifton, R.J., and Olson, E., (1976), 'The Human Meaning of Total Disaster- The Buffalo Creek Experience', in *Psychiatry*, February, Vol. 39, pp. 1 – 18.
55. Lindemann, E., (1944), 'Symptomatology and Management of Acute Grief', in *American Journal of Psychiatry*, Vol. 101, pp. 141 – 148.
56. Marshall, C., and Rossman, G., (1995), *Designing Qualitative Research*, 2nd Edition, SAGE, London.

57. McGrath, J.E., (1970), 'A Conceptual Formulation for Research on Stress', in *Social and Psychological Factors in* Stress, Altman, I., (Ed), Holt Rinehart and Winston, New York.
58. McLean, I., and Johnes, M., (2000), *Aberfan - Government and Disasters*, Welsh Academic Press, UK.
59. Merton, R.K., Fiske, M., and Kendall, P.L., (1990), *The Focused Interview – A Manual of Problems and Procedures*, Second Edition, The Free Press, Collier Macmillan Publishers, UK.
60. Mikulincer, M., and Florian, V., (1996), 'Coping and Adaptation to Trauma and Loss', in *Handbook of Coping Theory, Research, Applications*, Ziedner, M., and Endler, N.S., (Eds.), John Wiley and Sons Inc, USA.
61. Miles, M. B., and Huberman, A. M., (1994), *Qualitative Data Analysis: An Expanded Sourcebook*, SAGE, US.
62. Miller, E.D., and Omarzu, J., (1998), 'New Directions in Loss Research', in *Perspectives on Loss: A Sourcebook*, Harvey, J.H., (Ed), Taylor and Francis, USA.
63. Murphy, S.A., (1986), 'Perceptions of Stress, Coping and Recovery One and Three Years after a Natural Disaster', in *Issues in Mental Health Nursing*, Vol. 8, pp. 63 – 77.
64. Neimeyer, R.A., (1998), 'Can There be a Psychology of Loss', in *Perspectives on Loss: A Sourcebook*, Harvey, J.H., (Ed), Taylor and Francis, USA.
65. Neimeyer, R.A., (2001), 'The Language of Loss: Grief Therapy as a Process of Meaning Reconstruction', in *Meaning Reconstruction and the Experience of Loss*, Neimeyer, R.A., (Ed.), American Psychological Association, USA.
66. Norris, F.H., and Kaniasty, K., (1996), 'Received and Perceived Social Support in Times of Stress: A test of the Social Support Deterioration Deterrence Model', in *Journal of Personality and Social Psychology*, Vol. 71, No. 3, pp. 498 – 511.
67. Norris, F.H., and Murrell, S.A., (1988), 'Prior Experience as a Moderator of Disaster Impact on Anxiety Symptoms in Older Adults', in *American Journal of Community Psychology*, Vol. 16, no. 5, pp. 665 – 683.
68. Norris, F.H., Byrne, C.M., Diaz, E., and Kaniasty, K., (2001a), 'Psychosocial Resources in the Aftermath of Natural and Human-Caused Disasters: A Review of the Empirical Literature with Implications of Intervention', The National Center for PTSD, USA, http://www.ncptsd.org/facts/disasters/fs_resources.html
69. Norris, F.H., Byrne, C.M., Diaz, E., and Kaniasty, K., (2001b), 'Risk Factors for Adverse Outcomes in Natural and Human-Caused Disasters: A Review of Empirical Literature', The National Center for PTSD, USA, http://www.ncptsd.org/facts/disasters/fs_riskfactors.html
70. Orlitzky, M., (1998), 'One Night, Everything Disappeared: Toward a Model of Coping Effectiveness After Organizational Disasters', in *Journal of Personal and Interpersonal Loss*, Vol. 3, pp. 53 – 84.
71. Orlitzky, M., (2000), 'Survivors' Needs and Stories After Organizational Disasters: How Organizations Can Facilitate the Coping Process', in *Journal of Personal and Interpersonal Loss*, Vol. 5, pp. 227 – 245.
72. Park, C.L., (1998), 'Stress-Related Growth and Thriving Through Coping: The Roles of Personality and Cognitive Processes', in *Journal of Social Issues*, Vol. 54, No. 2, pp.267 – 277.

73. Parker, J.D.A., and Endler, N.S., (1996), 'Coping and Defense: A Historical Overview', in *Handbook of Coping Theory, Research, Applications*, Zeidner, M., and Endler, N.S., (Eds.), John Wiley and Sons Inc, USA.
74. Pearsall, J., (Ed), (1998), *The New Oxford English Dictionary*, Oxford University Press, UK
75. Quarantelli, E.L., and Dynes, R.R., (1970), 'Editors Introduction', in *American Behavioural Scientist*, Vol. 13, no. 3, pp. 325 – 330.
76. Quick, J.C., and Gavin, J.H., (2001), 'Four Perspectives On the Conservation of Resources Theory: A Commentary', in *Applied Psychology: An International Review*, July, Vol. 50, No. 3, pp. 392 – 400.
77. Quinn-Patton, M., (1990), *Qualitative Evaluation and Research Methods*, SAGE Publications, London, UK.
78. Rando, T.A., (1988), *Grieving: How to go on living when someone you love dies*, Lexington Books, USA.
79. Raphael, B., (1986), *When Disasters Strike - How individuals and Communities Cope With Catastrophe*, Basic Books Inc., New York
80. Reber, A.S., and Reber, E., (1985), *The Penguin Dictionary of Psychology*, Penguin Books, UK.
81. Samways, H., (2002), *Psychological Factors in Military Survival*, Unpublished PhD Thesis, University of Lancaster, UK.
82. Sattler, D., (2002a), 'Quick Response Report #158: The September 11th Attacks on America: Relationships Among Psychological Distress, Posttraumatic Growth, and Social Support in New York', *The Natural Hazards Research and Applications Information Center*, USA, http://www.colorado.edu/hazards/qr/qr158/qr158.html
83. Sattler, D., (2002b), 'Quick Response Report #160: El Salvador Earthquakes: Resource Loss, Traumatic Event Exposure, and Psychological Functioning', *The Natural Hazards Research and Applications Information Center*, USA, http://www.colorado.edu/hazards/qr/qr160/qr160.html
84. Schwarzer, R., (1998), 'Stress and Coping from a Social-Cognitive Perspective', in *Stress of Life – Annals of the New York Academy of Sciences*, No. 851, pp. 531 – 537.
85. Schwarzer, R., (2001), 'Stress, Resources and Proactive Coping, in *Applied Psychology: An International Review*, July, Vol. 50, No. 3, pp. 400-407.
86. Schwarzer, R., and Schwarzer, C., (1996), 'A Critical Survey of Coping Instruments', in *Handbook of Coping: Theory, Research, Applications*, Zeidner, M., and Endler, N.S., (Eds.), Wiley, New York.
87. Selye, H., (1978), *The Stress of Life*, McGraw Hill, New York.
88. Silverman, D., (2000), *Doing Qualitative Research – A Practical Handbook*, SAGE Publications, UK.
89. Smith, B.W., (1996), 'Coping as a Predictor of Outcomes Following the 1993 Midwest Flood', in *Journal of Social Behavior and Personality*, Vol. 11, No. 2, pp. 225 – 239.
90. Smith, B.W., and Freedy, J.R., (2000), 'Psychosocial Resource Loss as a Mediator of the Effects of Flood Exposure on Psychological Distress and Physical Symptoms', in *Journal of Traumatic Stress*, Vol. 13, No. 2, pp. 349 – 357.

91. Snelling, C., (2001), 'Northamptonshire Response to the Easter 1998 Flooding', *Care of Vulnerable Persons Seminar Presentation*, 1st November 2001, Northamptonshire County Council Emergency Planning, UK.
92. Somerfield, M.R., and McCrae, R.R., (2000), 'Stress and Coping Research – Methodological Challenges, Theoretical Advances and Clinical Applications', in *American Psychologist*, June, Vol. 55, No. 6, pp. 620 – 625.
93. Stewart, D.W., and Shamdasani, P.N., (1990), *Focus Groups – Theory and Practice*, Applied Social Research Methods Series, Volume 20, SAGE Publications, London, UK.
94. Tapsell, S., (1999), 'The Health Effects of Floods: The Easter 1998 Floods in England', in *Flood Hazard Research Centre Article Series*, No. 3/99, Middlesex University, UK.
95. Thompson, S. C., and Janigian, A., (1988), 'Life schemes: A framework for understanding the search for meaning', in *Journal of Social and Clinical Psychology*, Vol. 7, pp. 260-280.
96. Thompson, S.C., (1998), 'Blockades to Finding Meaning and Control', in *Perspectives on Loss: A Sourcebook*, Harvey, J.H., (Ed), Taylor and Francis, USA.
97. Titchener, J.L., and Kapp, F.T., (1976), 'Family and Character Change at Buffalo Creek', in *American Journal of Psychiatry*, 133:3, pp. 295 – 299.
98. Turner, B.A., Pidgeon, N.F., (1997), *Man-Made Disasters*, Butterworth-Heinemann, Boston.
99. Tyhurst, J.S., (1957), 'Psychological and Social Aspects of Civilian Disaster', in *Canadian Medical Association Journal*, 76, pp. 385 – 393.
100. Weiss, R.S., (1998), 'Issues in the Study of Loss and Grief', in *Perspectives on Loss: A Sourcebook*, Harvey, J.H., (Ed), Taylor and Francis, USA.
101. Western, K.A., (1972), *The Epidemiology of Natural and Man-Made Disasters – the Present State of the Art*, DTPH Dissertation, London School of Hygiene and Public Health, University of London, UK.
102. Wortman, C.B., and Silver, R.C., (1987), 'Coping With Irrevocable Loss', in *Cataclysms, Crises and Catastrophes – Psychology in Action*, The Master Lecturers Series Vanderbos, G.R., Bryant, B.K., (Eds.), American Psychological Association, USA.
103. Yin, R. K., (1994), *Case Study Research: Design and Methods*, (2nd ed.), SAGE, California, US.

WebPage References

1. BBC Weather Centre Online, November 2002, 'Flooding in recent Years', www.bbc.co.uk/weather/features/flooding_past.shtml
2. BBC Weather Centre Online, November 2002, 'Flood Facts', www.bbc.co.uk/weather/features/flood_facts.shtml
3. Environment Agency, Floodline, '30 Floods in 30 Months', www.environment-agency.gov.uk/flood/flood_map.htm
4. Environment Agency, Floodline, Case Study 2, 2000, www.environment-agency.gov.uk/flood/case_study_2.htm
5. Environment Agency, Floodline, Press Release 1, September 2000, www.environment-agency.gov.uk/flood/press_1.htm

6. House of Commons Select Committee on Agriculture, Sixth Report, 1997 – 1998, Paragraph 107/108, www.parliament.the-stationary-office.co.uk
7. Bye, P., and Horner, M., (1998), *Independent Review of the Easter Floods 1998*, Centre for Computational Geography, Section 1.1, www.ccg.leeds.ac.uk/simon/docs/report.htm
8. This Is York, March 12th, 1999, 'After the flood the heartache', www.thisisyork.co.uk/york/archive/1999/03/12/comment1VQ.html
9. Ministry of Agriculture, Food and Fisheries, (MAFF), 'Easter Floods: Morley Views Aftermath', News Release 204/98, 19th May 1998, www.maff.gov.uk/inf/newsrel/1998/980519a.htm
10. RMS, (2003), UK Floods November, www.rms.com/Publications/UKFLOODS_NOV2000.pdf
11. RMS, (2003), UK Floods October, www.rms.com/Publications/UKFLOODS_OCT13-14.pdf
12. The Guardian Online, October 30, 2000, 'Are storms the result of global warming?', www.guardianunlimited.co.uk/weather/Story/0,2763,390127,00.html
13. The Guardian Online, November 5, 2000, www.guardianunkimited.co.uk/Print/0,3858,4086273,00.html
14. The Guardian Online, November 6, 2000, 'UK hit by more flooding', www.guardianunlimited.co.uk/Print/0,3858,4086785,00.html
15. The Guardian Online, 'Waterlogged – A catalogue of misery', November 8 2000, www.guardianunlimited.co.uk/Print/0,3858,4087804,00.html
16. The Meteorological Office, National Climate and Weather Statistics, October 2000, www.met-office.gov.uk/ukclimate/2000/october.html

Appendix A

Photographs from Yorkshire 2000 and Northamptonshire 1998 Floods

Appendix A

Yorkshire, Autumn 2000 Flood

Picture 1 - Level of water during the flood

Picture 2 - One resident's humorous attempt to cope with the floods after several days

Appendix A

Picture 3

Picture 4

These two pictures illustrate the extensive damage to the same property four months post flood during the drying out stage

Appendix A

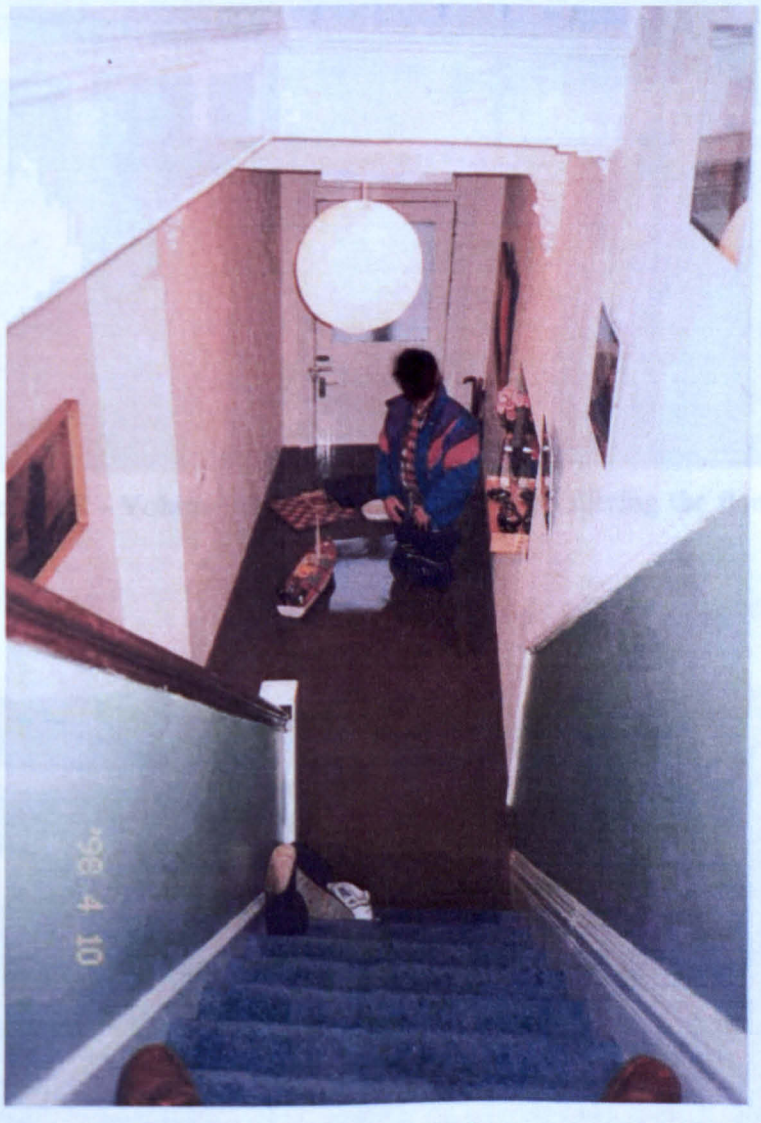
Picture 5

Picture 6

These two pictures illustrate the volume of water in Norton-on-Derwent

Appendix A

Northamptonshire, Easter 1998 Flood



Picture 7 - One resident recording the level of water for his own photo album

Appendix A

Picture 8 – Volume of water in Northampton during the floods

Picture 9 – Another residents humorous attempt to cope with the floods

(Read the caption on the side of the bus)

Appendix B

Study One
Focus Groups Interview Questions, Cover Letter and Questionnaire

Appendix B

Focus Groups Interview Questions

1. Can you talk me through what happened in the floods of last year?
This question aimed to begin the interview in a non-threatening and neutral way offering the participants the chance to open the discussion where they felt it was relevant.

2. How did you cope?
This was to initiate discussion on coping activities used to deal with a particular issue raised to allow confirmation of coping definitions.

3. When the floods arrived, what were you most concerned about?
This was to indicate priority and urgency as viewed by the participants so that the researcher could better understand the aspects of the flood that provided most attention at the start of the event.

4. After they died down – what were your priorities?
This question was to check if there were other less immediate but still important concerns to be dealt with after the initial impact. Question 3 and question 4 were both designed to collate data on what were important issues and at what stage of the flood.

5. Did you find getting solutions to small problems or making plans to deal with the after effects of the flood helped you in any way?
This was to see if discussion about problem solving activities could be initiated and if so were they beneficial?

6. Was there competition between people in any way?
Again this was to assess if problem-focused activities had taken place – in this case suppression of competing activities.

7. Did anyone find that humour helped you through the flood and it's after effects?
This question was to address the issue of social support and to discover what form this may have taken.

8. Did you ever feel like just staying in bed and giving up, because it all got too much?
The issue of disengagement coping was of concern to the researcher as to its applicability to this research so a question specifically targeting this was included.

9. Do you think if there was another flood that you would just have to live with it?
This question was to assess how participants would cope with a future flood and if it would involve disengagement activities of mental or behavioural disengagement.

10. Did you ever just accept the situation and try to get on with it?
This question was developed to understand the coping activities that may have taken place.

11. Did the floods in general inconvenience people in any way?
This question was to examine the issue of 'them and us' – those who were directly affected and those who were only inconvenienced to highlight where the differences in experience may occur. It was also included because it was felt discussion from a third-person perspective might be useful if participants appeared uncomfortable about discussing their own issues due to the sensitive nature and recentness of the event.

12. How did the flood affect your family and friends?
This question aimed to initiate discussion on the topic of emotional impact, personal stress and social networks.

13. What personal strengths helped you through the flood?
This was to investigate more thoroughly the resources category of Personal Characteristics and identify what sills or traits might typically be included.

14. Before the floods, how would you have handled a problem that came up?
15. Do you think you handle problems differently as a result of the flood?
Questions 14 and 15 were included to try and identify what coping activities participants typically employed before and after the flood and did they change as a direct result of the flood. This was to give an indication of coping used within the definitions previously outlined. Also did participants view the event as a loss-making, threatening or challenging situation by the use of coping employed?

16. How would you describe your personality?
This question was to offer a route into the topic of coping styles adopted and personal characteristics and traits inherent in the participant.

17. Did your daily routine change?
This was to examine the concept of normality and its loss.

18. Was there anything positive that happened as a direct result of the flood?
This question was to assess the Primary Appraisal process – were there benefits of the event?

19. How important were friends and family at this time?
This question addressed the issue of social support resources.

20. Did anyone find that belonging to a group prior to this flood helped them in any way?
This question had a two-fold purpose – firstly to examine the issue of social support networks but also to identify if religion, being a member of a local church, was an important factor in the coping process as religion had been alluded to previously but not in any great depth.

21. Has anyone been feeling off colour or ill since the flood?

This was to discover if there were any illnesses, physical or emotional present following the floods as an indication of stress within the Primary Appraisal process.

22. Did you find your attitude to the flood and its affects changed as time wore on?
This question was to assess if there was a timeframe and sequence of events which became more or less important throughout the flood. This would help ensure any further questioning covered all important issues and not just those concerning the immediate aftermath.

23. If I said that there would be another flood in a week's time, how do you feel?
This question attempted to address the issue of how an individual coped with the thought of future occurrences. Did they actively avoid the idea, try to 'laugh it off' or were working toward a solution to the problem, for example?

24. Do you think about the flood a lot?
This was to understand how the flood is perceived and in particular which parts were most salient to the individual.

25. Has the flood been financially draining on you in any way?
This was to begin discussion on the loss of an energy resource, money.

26. Has the flood taken up a lot of your time?
This was to begin discussion on the loss of an energy resource, time.

27. Do you think someone is to blame for this?
This was to begin discussion on the topic of a stress emotion – blame, which was to be used to continue into conversation on the other stress emotions.

28. Does anything make you angry about the whole event?
This was a secondary question to the topic of stress emotions to understand if Primary Appraisal had taken place.

29. When you think of the flood and how it affected your life, what would you change if you could?
Again this question was included to assess the key aspects of the flood that most impacted upon the individual and offer an opportunity to discuss the possible loss-making effect the event had.

30. Is there anything else you feel I need to know about the flood or your experience of it?
As previously outlined, this question was included to ensure all relevant topics were discussed from the perspective of the participants. This was a caveat to allow discussion to develop onto topics perceived as most important to the participants.

Appendix B

Human Factors Group
College of Aeronautics
Cranfield University
Cranfield
Bedfordshire
MK43 0AL
Tel: [redacted]
Email: [redacted]
Mobile: [redacted]

Date: 28th June 2001

Many thanks to those of you who helped me previously on this research project and I write to ask for your help once again. To those who have not yet participated I hope this will be an opportunity for you to express your opinion which will help ensure the final questionnaire is as relevant as possible to people who were flood affected.

I would like to ask if you would take a look at the attached pages, which have questions relating to last years floods on them. To further refine the scope of the research, before I send out the final questionnaire, I need to find out what people may have lost in the floods. This set of questions will help me determine what was most important to people at the time.

As you can see there are two sets of questions, one relating to physical item loss – like photos, cars or furniture and the other relating to more indefinable types of loss – like privacy, community or normality. This type of loss can still be felt but you may not be able to physically hold it or see it like you would a photo for example.

It would help me a great deal if you could spend a few minutes thinking about when the flood was in your area, what you did and how you felt at the time. There are no right or wrong answers, only your own opinion. All replies will be held in strictest confidence and specific answers will not be used to identify anyone. If you could return the completed question sheet by 6th July 2001, in the prepaid envelope, I would be very grateful.

Thank you for your help and if you have any questions at all please do not hesitate to contact me on the above details. I look forward to receiving all your answers shortly.

Yours,

Sarah Quinn

Appendix B

Thinking of when the floods struck your local area last year and remembering how you felt at the time and what you did, please read the following questions and answer as honestly as you can. There are no right or wrong answers, only your own opinion. Thank you for taking the time to answer these questions.

Q1. Please list **in order of importance to you,** up to **five** physical items that were lost or damaged by the floodwaters (For example - house, car, spectacles, photo's...) and what you did to deal with this situation:

EXAMPLE ANSWER:

1. ITEM: ***House***

How did you cope with this loss or damage at the time?

I was upset at first and relied on my family for support, but afterwards I took steps to make sure the house would be repaired.

YOUR ANSWERS:

1.1) FIRST ITEM:.....

How did you cope with this loss or damage at the time?

1.2) SECOND ITEM:.....

How did you cope with this loss or damage at the time?

1.3) THIRD ITEM.....

How did you cope with this loss or damage at the time?

1.4) FOURTH ITEM: .....

How did you cope with this loss or damage at the time?

1.5) **FIFTH** ITEM:.....

How did you cope with this loss or damage at the time?

Q2. Sometimes after a flood people can feel they have other types of loss that are not physical, such as privacy, normality or the attachment they had to their possessions. Take a moment to think about the floods and how you felt at the time. Did you feel you lost anything that was not a physical item? Please **list in order of importance to you**, up to **five** 'things' you felt you lost because of the floods.

EXAMPLE ANSWER:

1. What you felt you lost: **didn't feel in control anymore**

   How did you cope with this loss or damage at the time?

   I tried to deal with small things first but then felt like there was not much point in trying.

YOUR ANSWERS - In order of importance to you:

2.1) What you felt you lost: .....

How did you cope with this loss at the time?

2.2) What you felt you lost: .....

How did you cope with this loss at the time?

2.3) What you felt you lost: .....

How did you cope with this loss at the time?

2.4) What you felt you lost: .....

How did you cope with this loss at the time?

2.5) What you felt you lost:.....

How did you cope with this loss at the time?

Q3. At the time I saw the floods as a –

a) Challenge ☐
b) Loss ☐
c) Threat ☐

Q4. Are you:

Male ☐

Female ☐

Q5. Which age group do you put yourself in?

Under 20 years ☐
21 years to 30 years ☐
31 years to 40 years ☐
41 years to 50 years ☐
51 years to 60 years ☐
61 years to 70 years ☐
Over 71 years ☐

Thank you for you help and if you could now please send this form back to me in the prepaid envelope provided, I would be much obliged!

Appendix C

Study Two
Cover Letter and Questionnaire

Appendix C

Northamptonshire County Council
Emergency Planning

Cranfield UNIVERSITY

Human Factors Group
Dept. of Human Factors and Air Transport
School of Engineering
Cranfield University
Cranfield University
Bedfordshire
MK43 0AL
Tel: [redacted]
Email: [redacted]

Date: 27th September 2001

Were you affected by the flooding of Easter 1998 in Northamptonshire?

Dear Sir/Madam,

My name is Sarah Quinn and I am a PhD researcher from Cranfield University, working in conjunction with Northamptonshire County Council's Emergency Planning Unit. Together we are interested in assessing the effects that the Easter 1998 floods had on residents in Northamptonshire. I am sending this letter to you because Northamptonshire County Council identified your property as being flood affected in 1998. We are trying to identify what people lost as a direct result of this flood and how they coped with these losses. I would be very pleased if you could take the time to help us in this research, which in turn may help residents of Northamptonshire in the future.

So how can you help? Enclosed with this letter is a short questionnaire with two sections. Section One asks about personal information such as age and where you were living at the time of the flood. Section Two asks about what you may have lost as a direct result of the flood. I realise that for many this event seems a long time ago, but it would be extremely useful to me if you could take a few minutes to think back to when the floods were in your area.

Your answers will be used to create a comprehensive list of items that residents lost as a result of the floods. This list will then be used as the basis for short informal discussions I will carry out before the end of the year, which will provide a foundation for the final questionnaire that I hope to send out early in 2002. But it is only with your help that I can make sure the questions I ask and the issues I raise are as relevant as possible.

Appendix C

If you would like to take part in the second section of this research, informal discussions with me about how you coped with your losses, please fill in your name and address so I can contact you to arrange a convenient time and location. This will take no longer than one hour of your time at a later date.

Please be assured that any information or details you provide will be kept confidential and your comments will be used anonymously. You will not be identifiable in any way in the final report and thesis. However, once I receive your completed form it will not be possible to withdraw you from the project as all forms are returned anonymously and it will be difficult to tell one from another. Up until this point though you are free to withdraw from the project.

If you were not at this address when the floods arrived, you were not affected by the floods or you would rather not participate in this research, please could I ask you to tick the relevant box on the attached form indicating this? You will not be contacted again, but it would help me a great deal if you could indicate your reason for non-participation. Please use the FREEPOST envelope provided to return the form.

Many thanks for your time so far and if you would like clarification of anything in this letter, please do not hesitate to contact me. I hope you will decide to participate in this research.

Yours faithfully,

Sarah Quinn

Appendix C

Northamptonshire Questionnaire

SECTION ONE

Please answer the following questions as carefully as you can and go to the next question as directed. If for any reason you feel that you would rather not continue with this questionnaire, please go straight to the END OF SECTION TWO. This should take no longer than 15 minutes of your time to complete. Thank you.

1. Is the address where this questionnaire was sent to;

- ❑ Where you live now? — Please go to Question 2
- ❑ Where you work now? — Please go straight to END OF SECTION ONE
- ❑ Where you live **AND** work now? — Please go straight to END OF SECTION ONE

2. Were you living at this address, during the Easter 1998 floods (April 1998)?

- ❑ Yes - Could you please specify the region where you are now living?
  - ❑ Northampton
  - ❑ East Northamptonshire
  - ❑ South Northamptonshire
  - ❑ Wellingborough
  - ❑ Corby
  - ❑ Kettering
  - ❑ Daventry

  Please go to Question 4
- ❑ No — Please go to Question 3

3. Were you living in Northamptonshire during Easter 1998 (April 1998)?

- ❑ Yes - Could you please specify the region where you were living at the time of the floods?
  - ❑ Northampton
  - ❑ East Northamptonshire
  - ❑ South Northamptonshire
  - ❑ Wellingborough
  - ❑ Corby
  - ❑ Kettering
  - ❑ Daventry

  Please then go to Question 4
- ❑ No — Please go straight to END OF SECTION ONE

4. While living at this address, were you or your property affected by the floods of Easter 1998 (April 1998) in any way?

- ❑ Yes — Please go to Question 5
- ❑ No — Please go straight to END OF SECTION ONE

5. Thinking about the address where you lived or are currently living at, do you;

- ❑ Own this property - either outright or with a mortgage or loan
- ❑ Rent and pay bills at this property
- ❑ Live at this property but do not pay bills — Please go straight to Question 6

6. What age are you?

- ❑ Under 20 years old
- ❑ 21 – 40 years old
- ❑ 41 – 60 years old
- ❑ Over 61 years old — Please go to Question 7

7. **Are you;**

❑ Male

❑ Female Please go straight to SECTION TWO

END OF SECTION ONE:

Many thanks for your time so far, but from your answers it seems you do not quite fit our research criteria, which is mainly concerned with people in residential properties that were flood affected. Your previous answers will be included (anonymously) in the final report and thesis. Please tick the box below if you would like to receive a summary of this research when it is completed (Anticipated completion date – mid-2003).

❑ **Yes I would like to receive a summary of the findings from this research when it is complete.** (You will only be contacted when the research is complete).

You need to fill in your contact details so I can either remove your address from my files or use it to contact you as you request.

Name.....

Address.....

.....

.....

Please do not answer any more questions and return this questionnaire to me in the FREEPOST envelope provided. Thank you for your time.

SECTION TWO

PLEASE **ONLY ANSWER THIS SECTION** IF YOU ANSWERED 'YES' TO QUESTION 4 IN SECTION ONE

In this section I would like you to take a few moments to think about when the Easter 1998 floods occurred in Northamptonshire. What I would like to understand is what loss you experienced as a direct result of the floods. Sometimes this can be a **physical item** that has been damaged or lost, such as your car, house or a personal possession. Sometimes we can lose something that is **not a physical item**, such as a sense of safety, normality or privacy. This type of loss can be just as important to us as the loss of physical objects. Please take a moment to think about both types of loss and try to remember what happened, who was involved and how you felt at the time of the flood.

1. PHYSICAL ITEMS LOST/DAMAGED (e.g. car, house, a personal possession)

In this part, please list **in order of importance to you**, any physical items you felt were lost or damaged because of the floodwaters. Please do not feel you have to place an answer in every box.

1.	**6.**
2.	**7.**

3.	8.
4.	9.
5.	10.

2. NON-PHYSICAL LOSS (e.g. sense of safety, normality, privacy)
In this part, please list in order of importance to you, **anything else that you felt you lost because of the floodwaters that is not a physical item. Please do not feel you have to place an answer in every box.**

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

END OF SECTION TWO -

Do you wish to be contacted again by me in connection with this research project?

YES I would like to be contacted again because;

- ☐ I would like to receive a summary of the findings from this research when it is complete. (You will not be contacted again **until** the research is complete)
- ☐ I would like to participate in the next stage of this research. (Thank you! You will be contacted shortly regarding your participation in the next stage of the research)

NO I do not want to be contacted again

- ☐ I do not wish to have any further involvement in this research.
  Could you please indicate your reason? (Thank you for your help so far and you will not be contacted again).

  .....

You need to fill in your contact details so I can either remove your address from my files or use it to contact you as you request.

Name.....

Appendix C

Address.....

.....

.....

Phone Number (If preferred).....

Thank you for your help at this stage in the research, which will be used completely anonymously. If you have any further comments you would like to share, please feel free to use the back of this page if necessary.

Please could you now post this form back to me in the FREEPOST enveloped provided and I look forward to reading your comments.

Appendix D

Study Three
Interviews

Appendix D

Northamptonshire County Council
Emergency Planning

Cranfield UNIVERSITY

Human Factors Group
Dept. of Human Factors and Air Transport
School of Engineering
Cranfield University
Cranfield University
Bedfordshire
MK43 0AL
Tel: [redacted]
Email: [redacted]

Date: 21st June 2002

Were you affected by the flooding of Easter 1998 in Northamptonshire?

Dear Sir/Madam,

My name is Sarah Quinn and I am a PhD researcher from Cranfield University, working in conjunction with Northamptonshire County Council's Emergency Planning Unit. Together we are interested in assessing the effects that the Easter 1998 floods may have had on residents in Northamptonshire. We are trying to identify what people lost as a direct result of this flood and how they coped with these losses. I am sending this letter to you because your property may have been flood affected in 1998 and if so we would be very pleased if you could take the time to help us in this research, which in turn could help residents of Northamptonshire in the future.

So how can you help? I would like to carry out a series of short, one hour interviews with as many residents as possible in order gain a better understanding of what actually happened in Northamptonshire when the floods occurred. These interviews can be done at your convenience and I will travel to visit you at my own expense. Please be assured that any information or details you provide will be kept strictly confidential and your comments will be used anonymously. You will not be identifiable in any way in the final report and thesis. If you can answer 'Yes' to any of the following questions I would particularly like to talk to you.

1. Did you live in Northamptonshire in 1998 and experience the flooding?
2. Did you have floodwater in your house or garden?
3. Did you lose anything or have anything damaged as a direct result of the flooding?

If you would like to take part in this research please fill in your name and address so I can contact you to arrange a convenient time and location. Please use the FREEPOST envelope provided to return the form. If you were not at this address when the floods arrived, you were not affected by the floods or you would rather not participate in this research, please accept my apologies for writing to you. You will not be contacted again. Many thanks for your time so far and if you would like clarification of anything in this letter, please do not hesitate to contact me. I hope you will decide to participate in this research.

Yours faithfully,

Sarah Quinn

Appendix D

Northamptonshire Floods

Please place a cross in the 'yes' or 'no' box and return this form in the FREEPOST envelope provided

☐ **Yes** - I would like to participate in the informal discussions about my experiences of the floods in Northamptonshire in 1998. I understand that this interview will be approximately one hour long, any comments I make will be totally anonymous in the final report and thesis and any contact details I provide will be kept strictly confidential.

Name:

_____

Address:

_____

_____

_____

Contact Telephone Number:

_____

Thank you for agreeing to help me and I will be in touch shortly to arrange a suitable time and day to meet you.

OR

☐ **No** - I would not like to participate in the informal discussions about the floods in Northamptonshire in 1998.

If possible could you please indicate your reason?

_____

_____

_____

Many thanks for your time and I will not contact you again.

Appendix E

Coping Codes

(COPE Inventory, Carver, Scheier and Weintraub, 1989)

Coping Table

Appendix E

COPE Inventory, Carver, Scheier and Weintraub, 1989

Problem Focused Coping

Active Coping
- Took additional action to try and get rid of the problem
- Concentrated efforts on doing something about it
- Did what had to be done one step at a time
- Took direct action to get around the problem

Planning
- Tried to come up with a strategy about what to do
- Made a plan of action
- Thought hard about what steps to take
- Thought about how best to handle the problem

Suppression of Competing Activities
- Put aside other activities in order to concentrate on the situation
- Focused on dealing with the problem and if necessary let other things slide a little
- Kept self from getting distracted by other thoughts or activities
- Tried hard to prevent other things from interfering with efforts to deal with the situation

Restraint Coping
- Forced self to wait for the right time to do something
- Held off doing anything until the situation permitted
- Made sure not to make matters worse by acting too soon
- Restrained self from doing anything too quickly

Seeking Social Support for Instrumental Reasons
- Asked people who had similar experiences what they did
- Tried to get advice from someone about what to do
- Talked to someone to find out more about the situation
- Talked to someone who could do something concrete about the problem

Emotion Focused Coping

Seeking Social Support for Emotional Reasons
- Talked to someone about how they feel
- Tried to get emotional support from friends or relatives
- Discussed feelings with someone
- Got sympathy and understanding from someone

Positive Reinterpretation and Growth
- Looked for something good in what happened
- Tried to see situation in a different light, to make it seem more positive
- Learned something from the experience
- Tried to grow as a person as a result of the experience

Acceptance
- Learned to live with the situation
- Accepted it has happened and that it cannot be changed
- Got used to the idea that it happened

- Accepted the reality that it happened

Turning to Religion

- Sought God's help
- Put trust in God
- Tried to find comfort in their religion
- Prayed more than usual

Focus on and Venting of Emotions

- Got upset and let emotions out
- Let feelings out
- Felt a lot of emotional distress and found that they expressed those feelings a lot
- Got upset and was really aware of it

Humour

- Made fun of the situation
- Laughed about the situation
- Made jokes about the situation
- Messed around or 'kidded' around

Disengagement Focused Coping

Denial

- Refused to believe it happened
- Pretended that it had not really happened
- Acted as though it had not even happened
- Said to self "This is not real"

Behavioural Disengagement

- Gave up the attempt to get what they wanted
- Gave up trying to reach their goal
- Admitted to self that they could not deal with the situation and stopped trying
- Reduced the amount of effort they out into solving the problem

Mental Disengagement

- Turned to work or other substitute activities to take their mind off things
- Went to the cinema or watched TV to think about it less
- Daydreamed about things other than the situation
- Slept more than usual

Alcohol/Drug Use

- Drank alcohol or took drugs in order to think about it less

Appendix E

Coping Used to Deal With Resource Loss

Problem Focused Coping	Active Coping
PROBLEM A1	Took additional action to try and get rid of the problem
PROBLEM A2	Concentrated efforts on trying to do something about it
PROBLEM A3	Did what had to be done one step at a time
PROBLEM A4	Took direct action to get around the problem
	Planning
PROBLEM B1	Tried to come up with a strategy about what to do
PROBLEM B2	Made a plan of action
PROBLEM B3	Thought hard about what steps to take
PROBLEM B4	Thought about how best to handle the problem
	Suppression of Competing Activities
PROBLEM C1	Put aside other activities in order to concentrate on the situation
PROBLEM C2	Focused on dealing with the problem and if necessary let others things slide a little
PROBLEM C3	Kept self from being distracted by other thoughts or activities
PROBLEM C4	Tried hard to prevent other things from interfering with efforts to deal with situation
PROBLEM C5 Extra	Suppression of competing with others
	Restraint Coping
PROBLEM D1	Forced self to wait for the right time to do something
PROBLEM D2	Held off doing anything until the situation permitted
PROBLEM D3	Made sure not to make matters worse by acting too soon
PROBLEM D4	Restrained self from doing anything too quickly
	Seeking Social Support for Instrumental Reasons
PROBLEM E1	Asked people who had similar experiences what they did
PROBLEM E2	Tried to get advice from someone about what to do
PROBLEM E3	Talked to someone to find out more about the situation
PROBLEM E4	Talked to someone who could do something concrete about the problem
PROBLEM E5 Extra	Getting help from others to solve the problem

Appendix E

Emotion Focused Coping	Seeking Social Support for Emotional Reasons
EMOTION A1	Talked to someone about how they feel
EMOTION A2	Tried to get emotional support from friends or relatives
EMOTION A3	Discussed feelings with someone
EMOTION A4	Got sympathy and understanding from someone
	Positive Reinterpretation and Growth
EMOTION B1	Looked for something good in what happened
EMOTION B2	Tried to see the situation in a different light, to make it seem more positive
EMOTION B3	Learned something from the experience
EMOTION B4	Tried to grow as a person as a result of the experience
	Acceptance
EMOTION C1	Learned to live with the situation
EMOTION C2	Accepted it has happened and that it cannot be changed
EMOTION C3	Got used to the idea that it happened
EMOTION C4	Accepted the reality that it happened
	Turning to Religion
EMOTION D1	Sought God's help
EMOTION D2	Put trust in God
EMOTION D3	Tried to find comfort in their religion
EMOTION D4	Prayed more than usual
	Focus on and Venting of Emotions
EMOTION E1	Got upset and let emotions out
EMOTION E2	Let feelings out
EMOTION E3	Felt a lot of emotional distress and found that they expressed those feelings a lot
EMOTION E4	Got upset and was really aware of it
EMOTION E5 Extra	Was worried about a reoccurrence of the situation/continual checking
EMOTION E6 Extra	Felt someone was to blame for the situation
	Humour
EMOTION F1	Made fun of the situation
EMOTION F2	Laughed about the situation

Appendix E

EMOTION F3	Made jokes about the situation
EMOTION F4	Messed around or 'kidded' around
	Positive Comparisons
EMOTION G1 Extra	Felt that it 'could have been worse' in some way
EMOTION G2 Extra	Felt that others fared worse than they did
EMOTION G3 Extra	Felt 'lucky' in some way compared to others
Disengagement Focused Coping	**Denial**
DISENG A1	Refused to believe it happened
DISENG A2	Pretended that it had not really happened
DISENG A3	Acted as though it had not even happened
DISENG A4	Said to self 'This is not real'
	Behavioural Disengagement
DISENG B1	Gave up the attempt to get what they wanted
DISENG B2	Gave up trying to reach their goal
DISENG B3	Admitted to self that they could not deal with the situation and stopped trying
DISENG B4	Reduced the amount of effort they put into solving the problem
	Mental Disengagement
DISENG C1	Turned to work or other substitute activities to take their mind off things
DISENG C2	Went to the cinema or watched TV to think about it less
DISENG C3	Daydreamed about things other than the situation
DISENG C4	Slept more than usual
DISENG C5 Extra	Lack of interest in activities going on around them or situation
	Alcohol/Drug Use
DISENG D1	Drank alcohol or took drugs in order to think about it less
	Negative Comparisons
DISENG E1 Extra	Felt they fared worse than others